CAMBOI		ECTRICAL MOLINITING HEIGHT			MOUNTING LIFTOUT
SYMBOL	RE ALARM SYSTEM	MOUNTING HEIGHT	SYMBOL	DESCRIPTION  MISCELLANEOUS	MOUNTING HEIGHT
	CARBON MONOXIDE ALARM		CR	CARD READER	
	CCTV			CEILING MOUNTED JUNCTION BOX	
	DUCT SMOKE DETECTOR. NOTE 6				
				DUDESS BUTTON	
FAA	FIRE ALARM ANNUNCIATOR		D MC	DURESS BUTTON	
FACP	FIRE ALARM CONTROL PANEL		MC	ELECTRICAL LOCK	
E <sub>DH</sub>	FIRE ALARM DOOR HOLDER	VEDEX	(P) •	PROJECTOR	
	FIRE ALARM HORN	VERIFY	<u></u>	PUSH BUTTON	
	FIRE ALARM MINI HORN	80" UNO	RX FI (O	REQUEST TO EXIT	
	FIRE ALARM HORN STROBE	80" UNO		WALL MOUNTED JUNCTION BOX	
E -	FIRE ALARM MANUAL PULL STATION	48" UNO		POWER	
\$	FIRE ALARM SMOKE DETECTOR			BUILDING WIRES IN CONDUIT, ALL PER CODE  COMBO CONTACTOR AND FUSED	
S <sub>R</sub>	FIRE ALARM SMOKE DETECTOR. PROVIDE RELAY	80" UNO		DISCONNECT SWITCH COMBO TIME CLOCK AND FUSED	
	FIRE ALARM STROBE			DISCONNECT SWITCH	
FS	FLOW SWITCH		СР	CONTROL PANEL	
(1)	HEAT DETECTOR			DISCONNECT SWITCH. FUSED UNO.	
KP	KEY PAD			FUSED COMBO SWITCH/MAGNETIC STARTER	
M	MAGNETIC DOOR HOLD			FUSED DISCONNECT	
PS	POWER SUPPLY		HD	HAND DRYER	
0	PUSH BUTTON			HOMERUN PER CODE	
<u> </u>	SPEAKER		(8)	METER	
TS	TAMPER SWITCH			METER	
	LIGHTING		<i>\( \)</i>	MOTOR	
×	CEILING FAN			PANELBOARD	
<b>₽</b>	EXIT SIGN		• • •	PUSH BUTTON CONTROL STATION	48" UNO
X	LUMINAIRE, CEILING MOUNTED		Ф	DUPLEX RECEPTACLE. 120V 20A NOTE 4	18" UNO
0	LUMINAIRE, DOWN LIGHT		Ψ	DUPLEX RECEPTACLE. 120V 20A NOTE 4	18" UNO
	LUMINAIRE		#	QUADPLEX RECEPTACLE	18" UNO
H	LUMINAIRE		Φ	DUPLEX RECEPTACLE. 120V 20A NOTE 4 ON CRITICAL POWER	18" UNO
	LUMINAIRE		*	QUADPLEX RECEPTACLE ON CRITICAL POWER	18" UNO
	LUMINAIRE		φ	SIMPLEX RECEPTACLE	
	LUMINAIRE		$\bigcirc$	SPECIAL OUTLET	
	LUMINAIRE		\$	WALL SWITCH/SNAP SWITCH. NOTE 5	48" UNO
	LUMINAIRE		\$DL FRAC	NOTE 1	
	LUMINAIRE, NIGHT LIGHT		\$ ,	NOTE 2	
$\odot$	LUMINAIRE, PENDANT		\$	NOTE 3	
	OCCUPANCY SENSOR COMPLETE SYSTEM		\$,	PILOT LIGHT	
<u>—</u>	PHOTO CELL		\$_SP	SPEED CONTROL SWITCH	
<b>&gt;</b>	REMOTE HEAD		\$ 7	0-15 MINUTE TIMER SWITCH	1
	TRACK LIGHTING			SURFACE WIRE WAY (WIREMOLD)	
	WALL WASH			TELECOM	
			(X)	TELEPHONE OUTLET (X) = # OF CAT 6 CABLES	18" UNO
			(X)	TELEPHONE/DATA COMBINATION OUTLET  (X) = # OF CAT 6 CABLES  (X) = # OF CAT 6 CABLES	18" UNO
			(X)	WALL MOUNTED TELEPHONE OUTLET  (X) = # OF CAT 6 CABLES  (X) = # OF CAT 6 CABLES	48" UNO
			\\\(\tau_{\mathcal{V}}\)	CATY OUTLET	18" UNO
			(X)	DATA OUTLET - (X) = # OF CAT 6 CABLES	18" UNO
			(2) <b>(</b> 2)	FLOOR OUTLET	
A. NOT ALL :	MBOLS GENERAL NOTES: SYMBOLS ARE NECESSARILY USED ON THIS PROJECTAND PLATES SHALL BE IVORY.  1 —— LUMINAIRE TYPE  VR1  CIRCUIT PANEL—CIRCUIT NUMBER/RELAY NU SWITCH LEG	2. MOTOR RA 3. MANUAL M PILOT LIGH 4. RECEPTACI AS FOLLO' AC=ABO' TABLE, A GFI=GRO GA=GFI+ WP=PRO COVER. 5. SWITCHES: O.R. = MOM. =	AL HORSEPOWER ATED SWITCH. MC IOTOR CONTROLL HT. WITH OVERLO LES: WHERE IND WS: VE COUNTER (IN ABOVE BENCH). UND FAULT CIRC HAC. VIDE WEATHER F	ICATED OR WHERE REQUIRED BY CODE PROVIDE ( ICLUDES ABOVE COUNTER, ABOVE BACK—SPLASH,	O OVERLOADS. TOGGLE, TOGGLE RED CERTAIN RECEPTACLES ABOVE DESK, ABOVE HERPROOF IN USE
		O. TROVIDE F	J.L. AJ NEOE	SS NOTINE INC. I AND THE HAT FOR THAT SHO	

16

	DRAWING INDEX
E001	DRAWING INDEX AND SYMBOLS
ED100	DEMOLITION PLAN — BASEMENT
ED101	DEMOLITION PLAN - FIRST FLOOR
ED102	DEMOLITION PLAN - SECOND FLOOR
ES100	ELECTRICAL SITE PLAN
ES101	ENLARGED ELECTRICAL SITE PLAN
EP100	POWER PLAN — BASEMENT
EP101	POWER PLAN — FIRST FLOOR
EP102	POWER PLAN — SECOND FLOOR
EP103	POWER PLAN — ATTIC
EL100	LIGHTING PLAN — BASEMENT
EL101	LIGHTING PLAN — FIRST FLOOR
EL102	LIGHTING PLAN — SECOND FLOOR
EL103	LIGHTING PLAN — ATTIC
ET100	TELECOMMUNICATIONS PLAN — BASEMENT
ET101	TELECOMMUNICATIONS PLAN — FIRST FLOOR
ET102	TELECOMMUNICATIONS PLAN — SECOND FLOOR
E400	ENLARGED ELECTRICAL PLANS
E401	BUILDING 9 LINK PLANS
E500	ELECTRICAL DETAILS
E501	ELECTRICAL DETAILS
E502	ELECTRICAL DETAILS
E503	ELECTRICAL AND TELECOMMUNICATION DETAILS
E600	POWER RISER DIAGRAM — DEMOLITION
E601	POWER RISER DIAGRAM AND DETAILS
E602	SCHEDULES
E603	SCHEDULES

## **100% CD SET**



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3339 West St. Germain, Suite 250
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(320) 217-5557

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$\neg$	STAMP/SEAL:	DR
	I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION, AND THAT I AM A DLLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.	
	MN 46184	AF
1	AARON R. MUELLER, PE REG. NO.	
1	DATE: 12-20-2013	
1		

PROJECT TITLE
RECONFIGURE/EXPAND
BUILDINGS 28 & 9
RESIDENTIAL REHABILITATION
TREATMENT PROGRAM

APPROVED: PROJECT DIRECTOR

DATE
12.20.2013

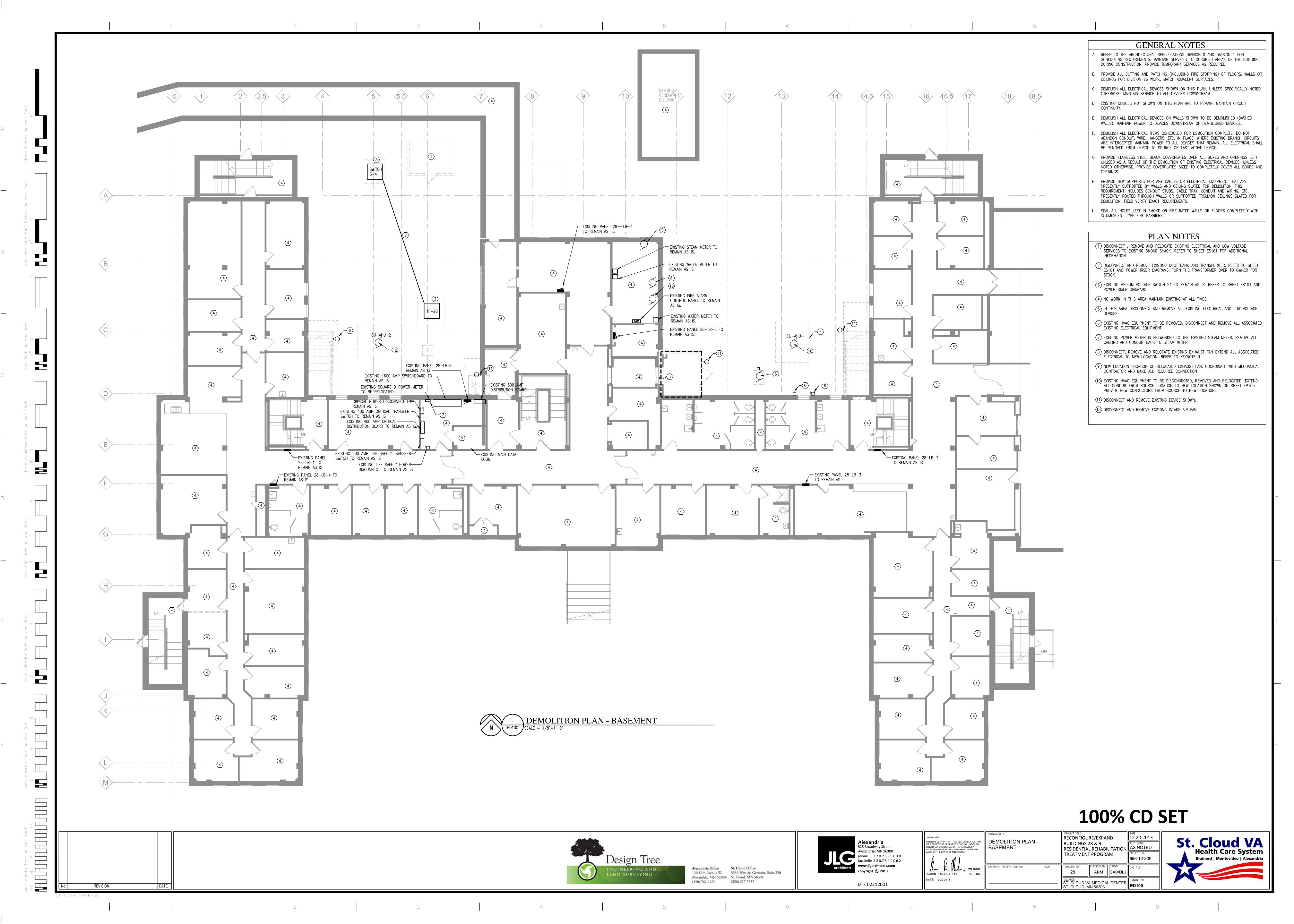
PLOT SCALE
AS NOTED
PROJECT NO.
656-12-339

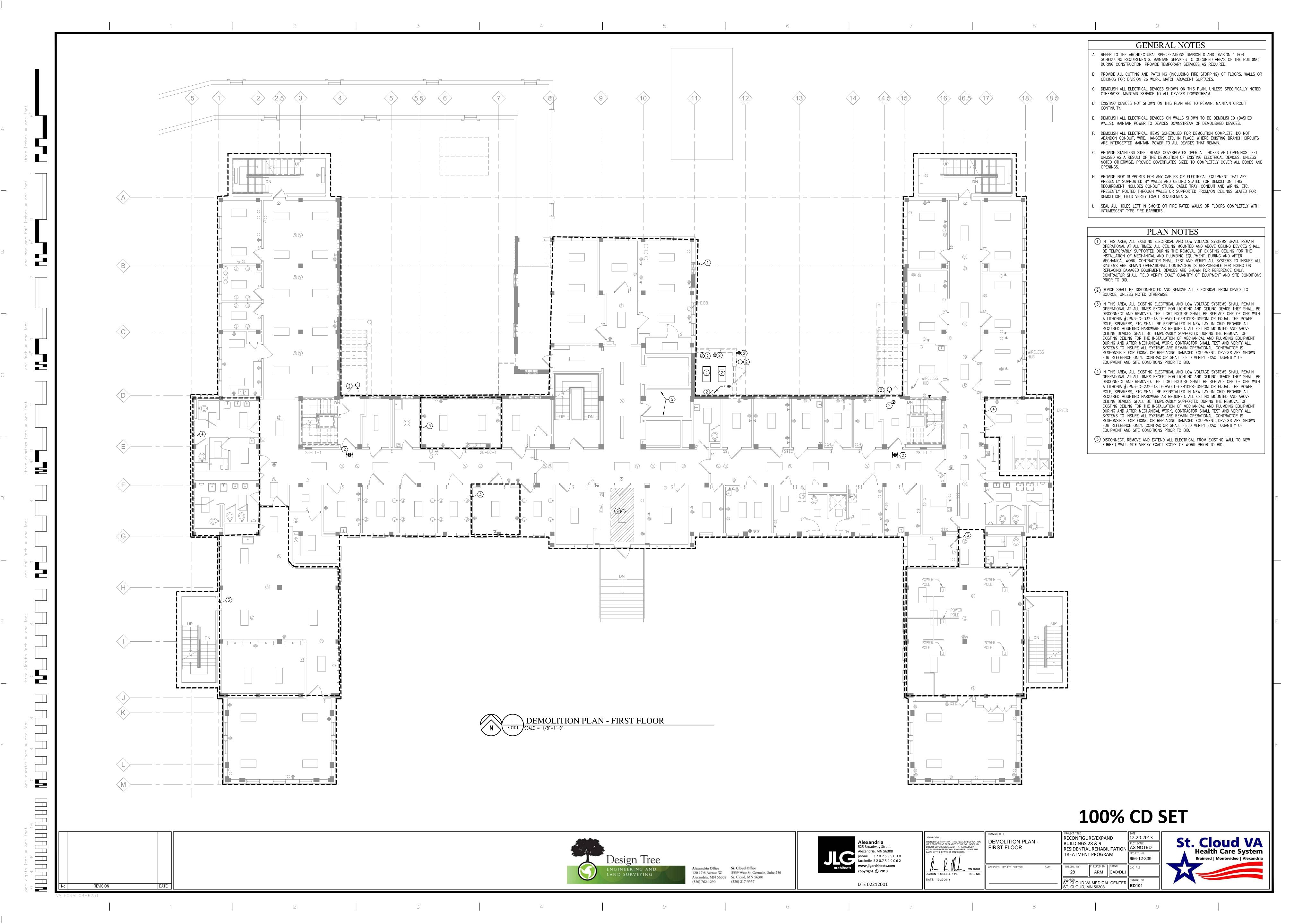
BUILDING No
28

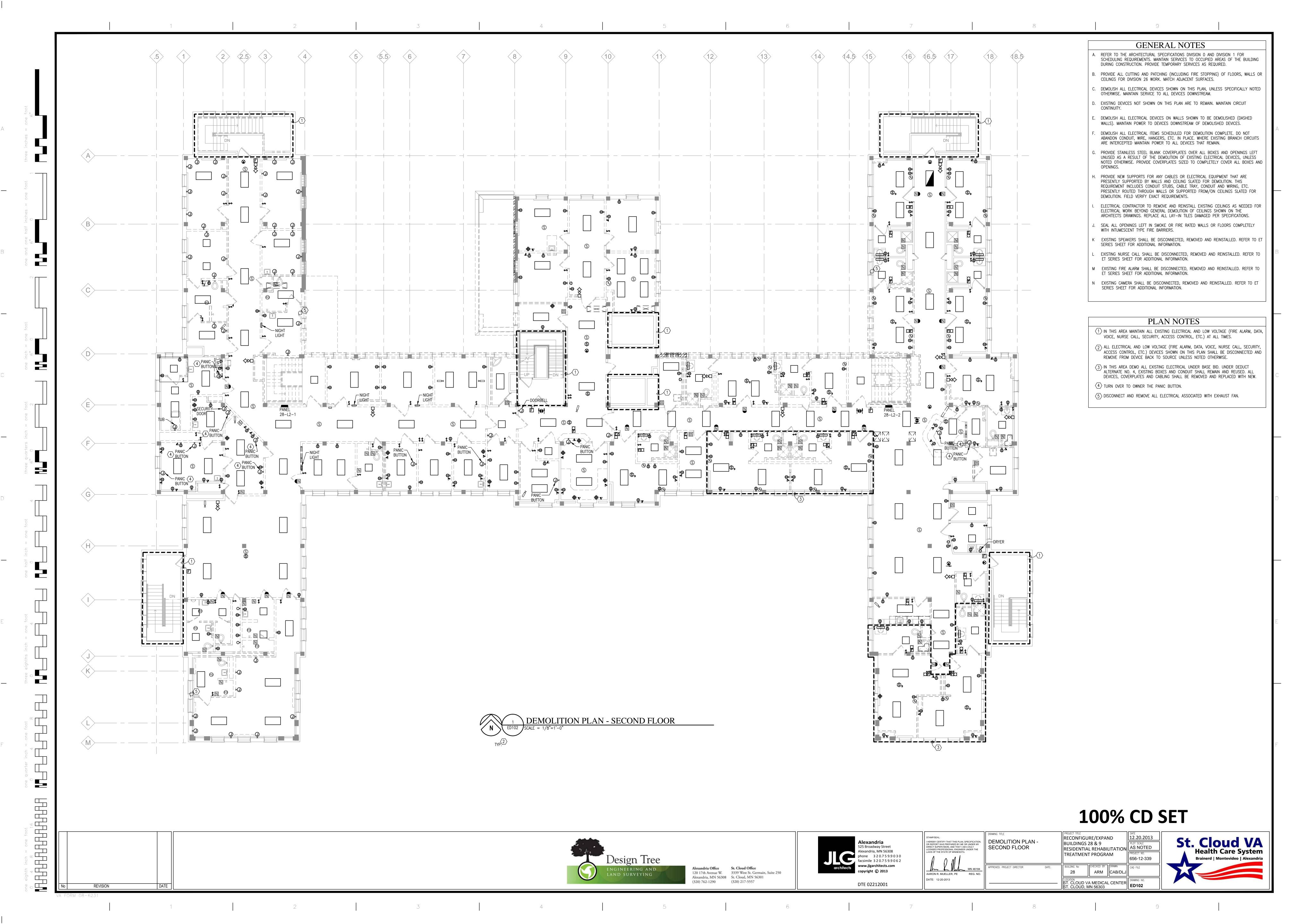
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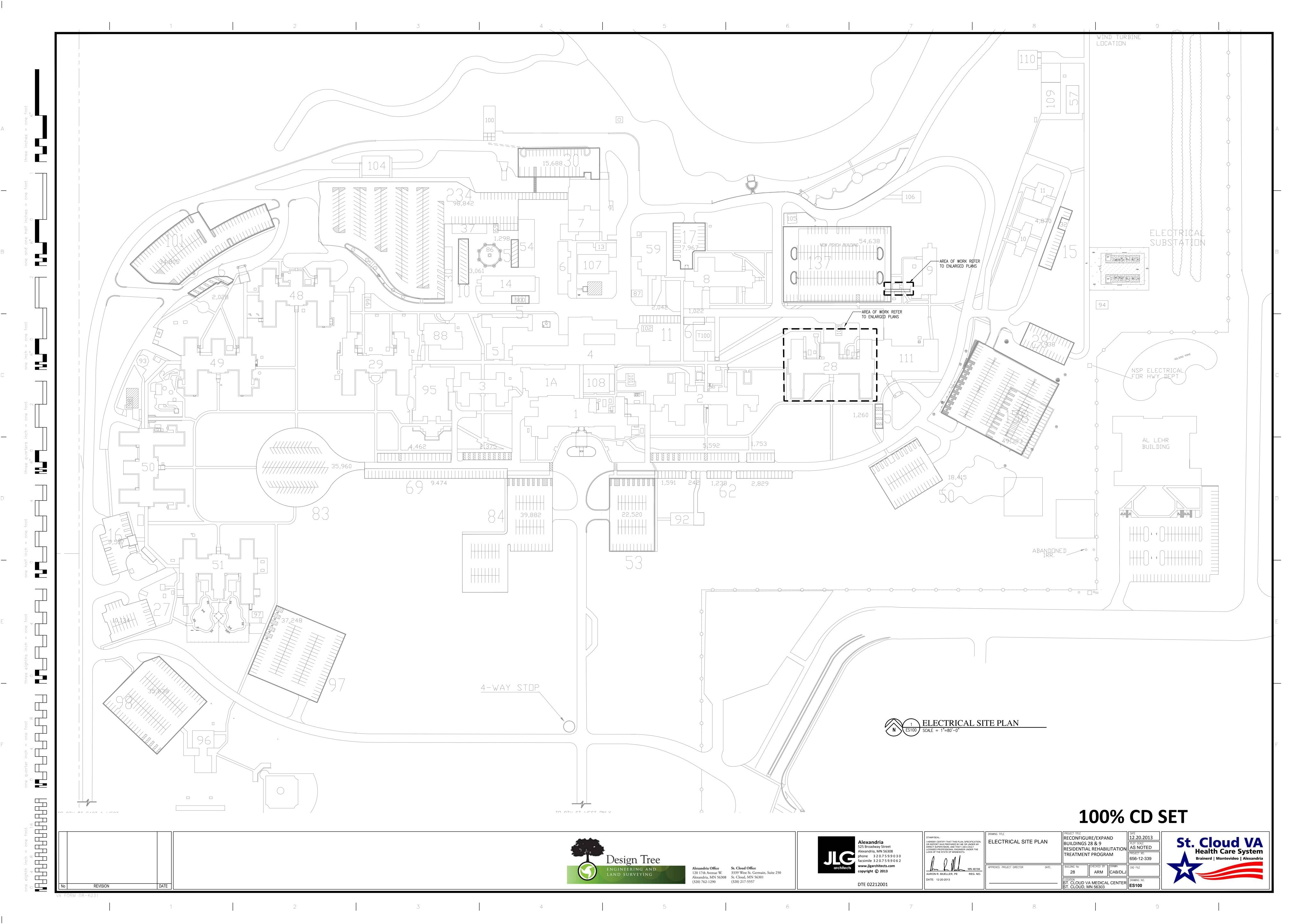
DRAWING NO.
E001

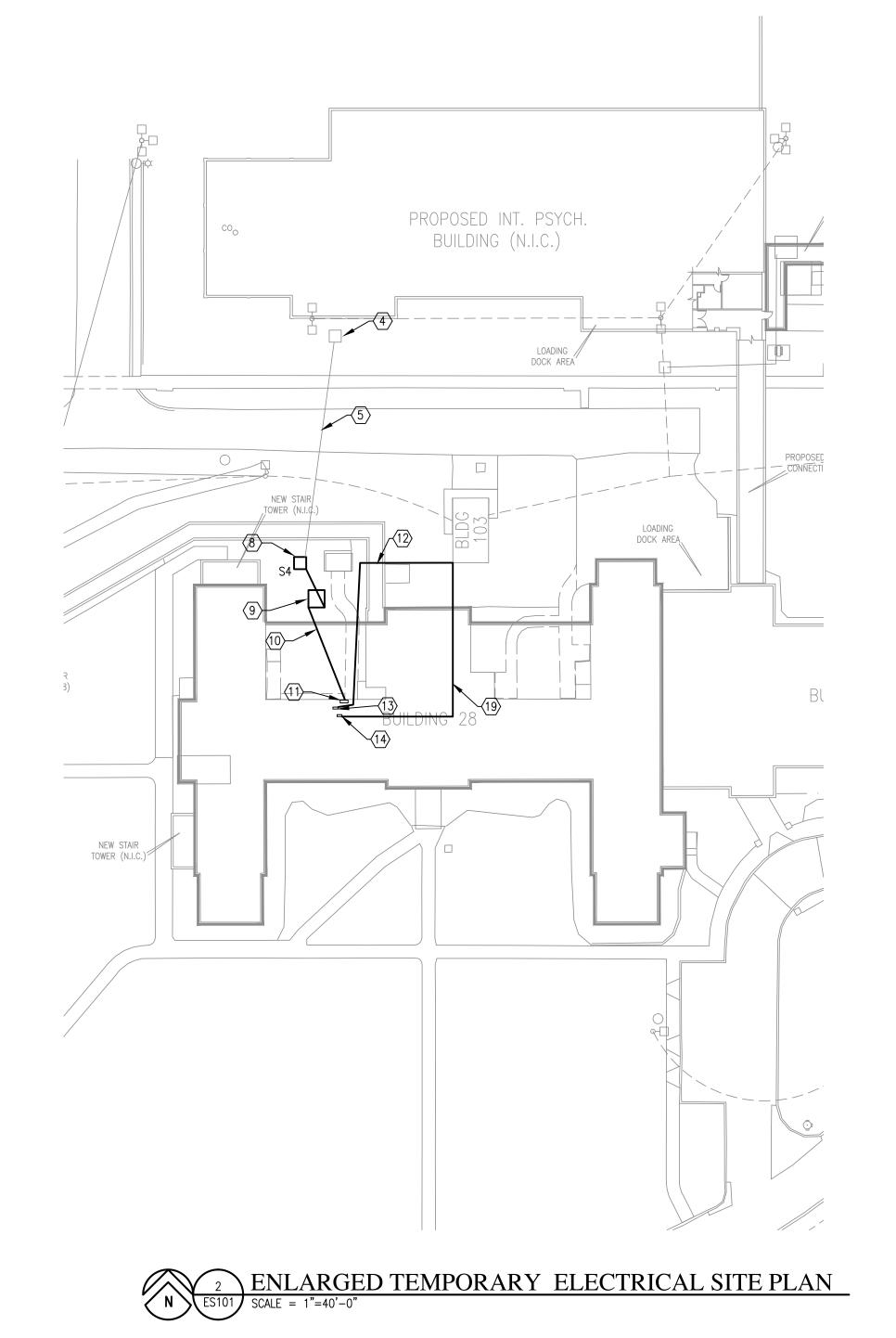


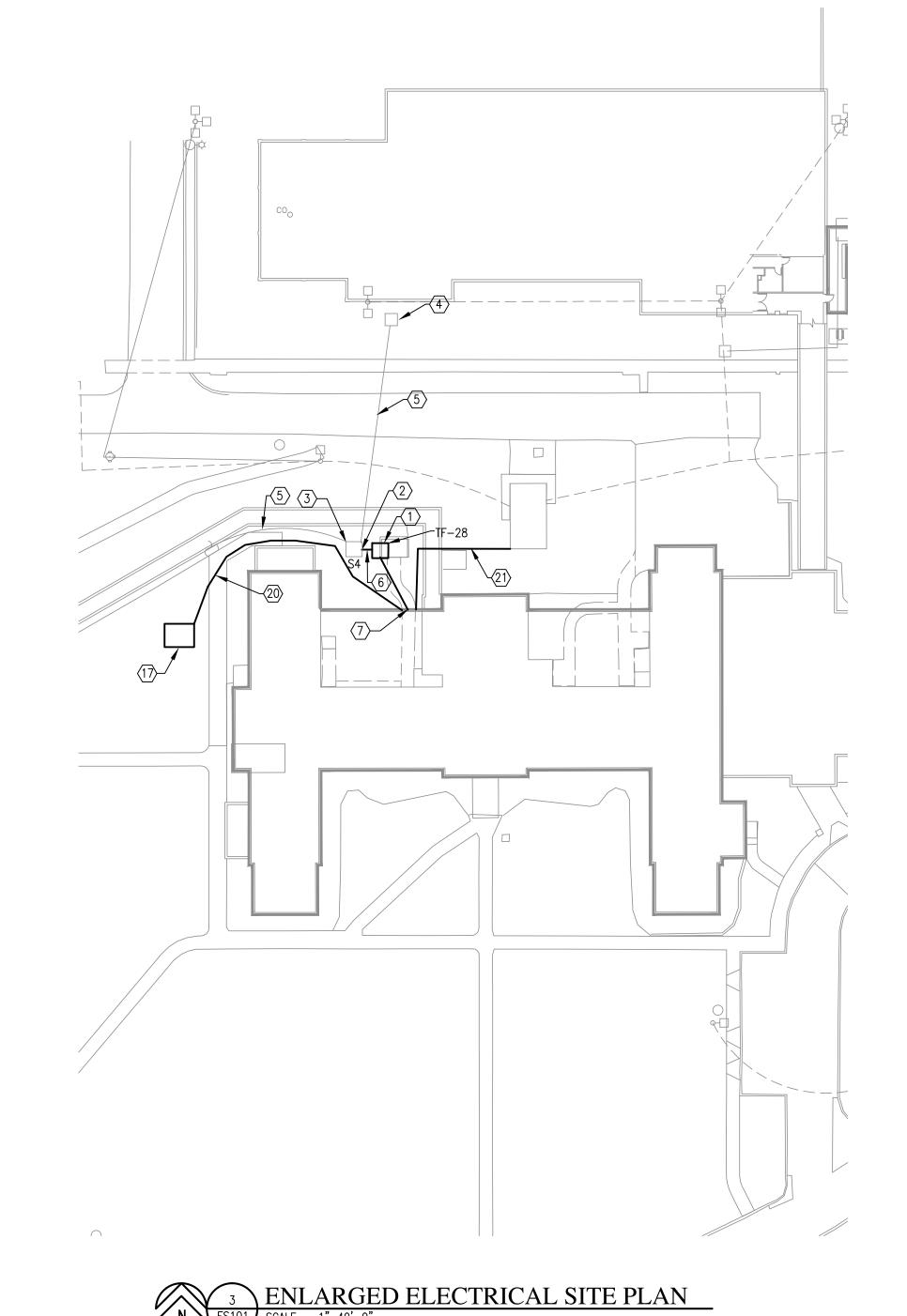












#### PLAN NOTES

- $\langle 1 \rangle$  NEW MEDIUM VOLTAGE TRANSFORMER TF-28.
- PROVIDE NEW DUCT BANK AT EXISTING MEDIUM VOLTAGE SWITCH TO FEED NEW MEDIUM VOLTAGE TRANSFORMER TF-28. REFER TO NOTE 6 BELOW FOR ADDITIONAL INFORMATION.
- (3) EXISTING MEDIUM VOLTAGE SWITCH S4 TO REMAIN AS IS. MODIFY FEEDS AS SHOWN ON THIS SHEET AND POWER RISER DIAGRAM.
- $\langle 4 \rangle$  APPROXIMATE LOCATION OF EXISTING MANHOLE. MANHOLE TO REMAIN.
- 5 APPROXIMATE LOCATION OF EXISTING CONCRETE DUCT BANK. DUCT BANK AND CABLING TO REMAIN.
- 6 NEW DUCT BANK TO FEED NEW MEDIUM VOLTAGE TRANSFORMER TF-28.
- $\langle 7 \rangle$  PROVIDE SECONDARY FEEDER FROM NEW TRANSFORMER TO NEW SWITCHBOARD

(28-MSB-1) LOCATED IN THE BASEMENT LEVEL OF BUILDING.

- (8) EXISTING MEDIUM VOLTAGE SWITCH S4 TO REMAIN.
- (9) PROVIDE TEMPORARY MEDIUM VOLTAGE TRANSFORMER TO FEED BUILDING 28 1600 AMP SWITCHBOARD. INTERCEPT EXISTING DUCT BANK AND MAKE ALL REQUIRED CONNECTIONS. (ELECTRICAL CONTRACTOR HAS OPTIONS FOR TEMPORARY POWER AS FOLLOWS: TEMPORARY TRANSFORMER, GENERATOR, NEW TRANSFORMER, RELOCATED EXISTING
- PROVIDE TEMPORARY 1600 AMP SECONDARY FEEDER FROM TEMPORARY TRANSFORMER TO EXISTING BUILDING 28 SWITCHBOARD.
- (11) APPROXIMATE LOCATION OF EXISTING BUILDING 28 SWITCHBOARD.

CONNECTION AS REQUIRED FOR THE ADDITION TO THE BUILDING.

- (12) INTERCEPT EXISTING 400 AMP (CRITICAL) FEED FROM EXISTING GENERATOR TO EXISTING DISCONNECT LOCATED IN BUILDING 28 ELECTRICAL ROOM AND PROVIDE TEMPORARY
- (13) BUILDING 28 400 AMP DISCONNECT FOR CRITICAL POWER.

IS INSTALLED.

- (14) BUILDING 28 200 AMP DISCONNECT FOR LIFE SAFETY DISCONNECT.
- (15) ELECTRICAL CONTRACTOR SHALL DISCONNECT AND REMOVE ALL TEMPORARY ELECTRICAL DEVICE, CABLING, AND ASSOCIATED EQUIPMENT) IN ITS ENTIRETY AFTER NEW SERVICE
- (16) THE ELECTRICAL CONTRACTOR SHALL DISCONNECT AND REMOVE EXISTING MEDIUM VOLTAGE TRANSFORMER, DUCT BANK, MEDIUM VOLTAGE CABLE FROM MEDIUM VOLTAGE SWITCH TO TRANSFORMER, AND SECONDARY FEEDER TO BUILDING 28 SWITCHBOARD. REFER TO ELECTRICAL POWER RISER DIAGRAM NEW AND DEMOLITION. THE MEDIUM
- VOLTAGE TRANSFORMER SHALL BE TURNED OVER TO OWNER. (17) RELOCATED SMOKE SHACK. PROVIDE ALL ASSOCIATED ELECTRICAL AND LOW VOLTAGE AS SHOWN (REFER TO DETAIL 3/ES101) TO THIS LOCATION. PROVIDE A 100A-3P FEEDER TO SMOKE SHACK FROM NEW SWITCHBOARD. 1 1/4"C.-4#3, 1#8 GND. MAKE ALL REQUIRED CONNECTIONS TO SHACK PANEL.
- (18) DISCONNECT AND REMOVE ALL ASSOCIATED ELECTRICAL AND LOW VOLTAGE FOR SMOKE SHACK. REFER TO PLAN NOTE 17 ABOVE AND DETAIL 3/ES101 FOR ADDITIONAL
- (19) PROTECT EXISTING 200AMP LIFE SAFETY FEED FROM THE GENERATOR BUILDING AT ALL
- (20) APPROXIMATE LOCATION OF NEW FEEDER AND LOW VOLTAGE SERVICE TO RELOCATED SMOKE SHACK.
- (21) NEW FEEDER FOR (CRITICAL) FEED FROM EXISTING GENERATOR TO NEW DISCONNECT LOCATED IN BUILDING 28 ELECTRICAL ROOM. REFER TO POWER RISER DIAGRAMS FOR ADDITIONAL INFORMATION.



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ENLARGED ELETRICAL

RECONFIGURE/EXPAND
BUILDINGS 28 & 9
RESIDENTIAL REHABILITATION

RESIDENTIAL REHABILITATION TREATMENT PROGRAM BUILDING No CHECKED BY DRAWN

28 ARM CAB/DLJ ST. CLOUD VA MEDICAL CENTER
T. CLOUD, MN 56303

DRAWING NO.
ES101

**100% CD SET** 

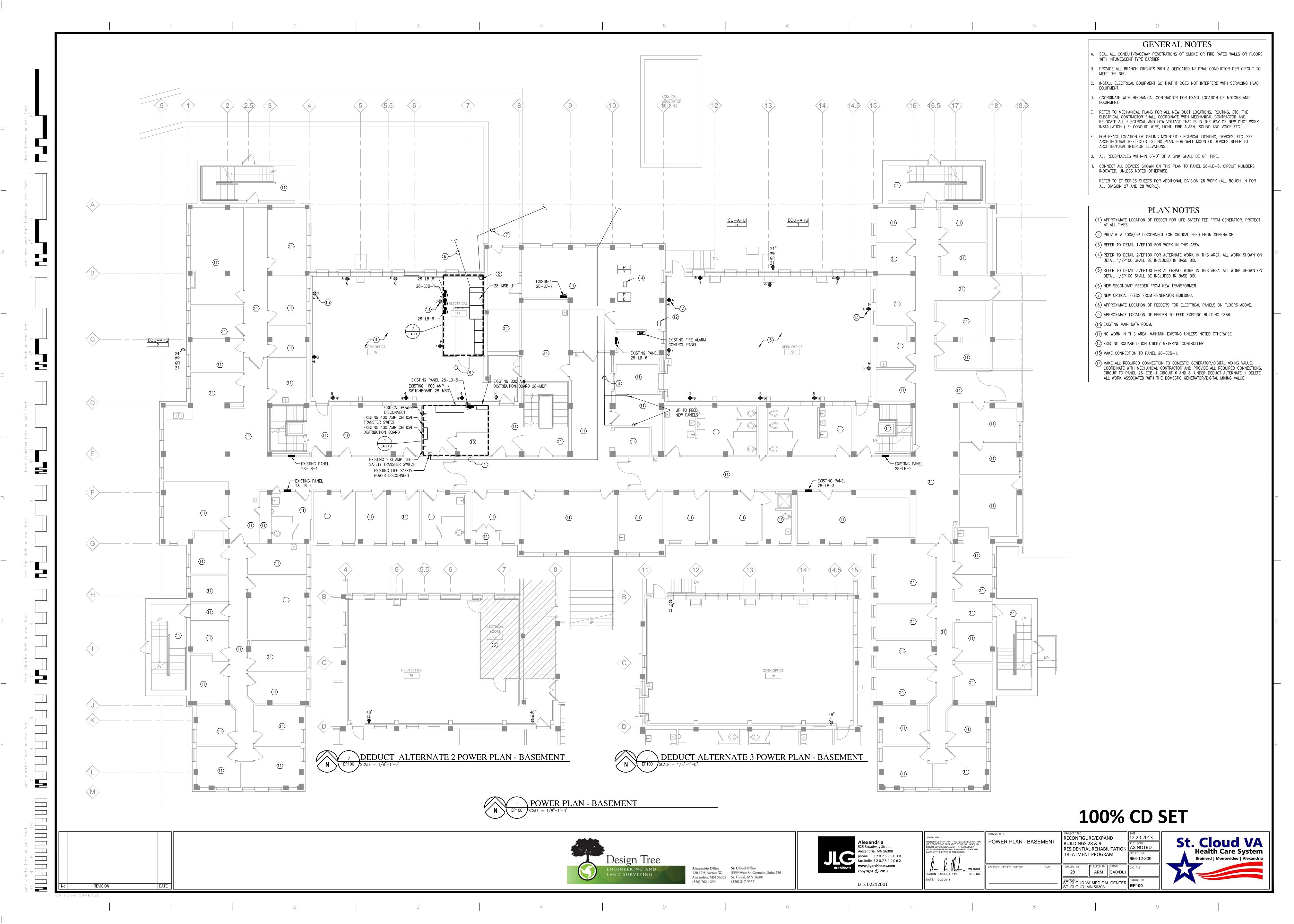


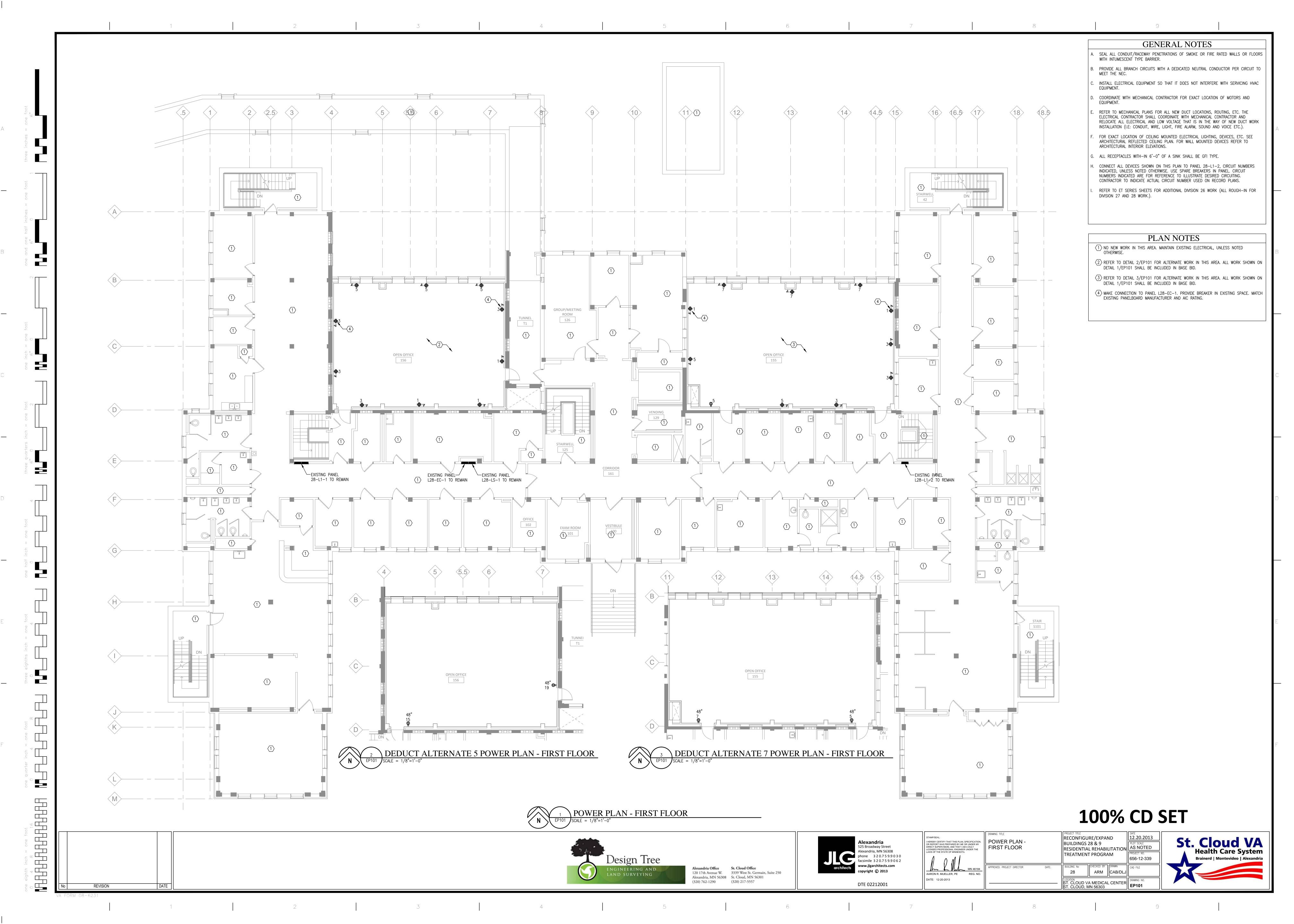
Design Tree LAND SURVEYING

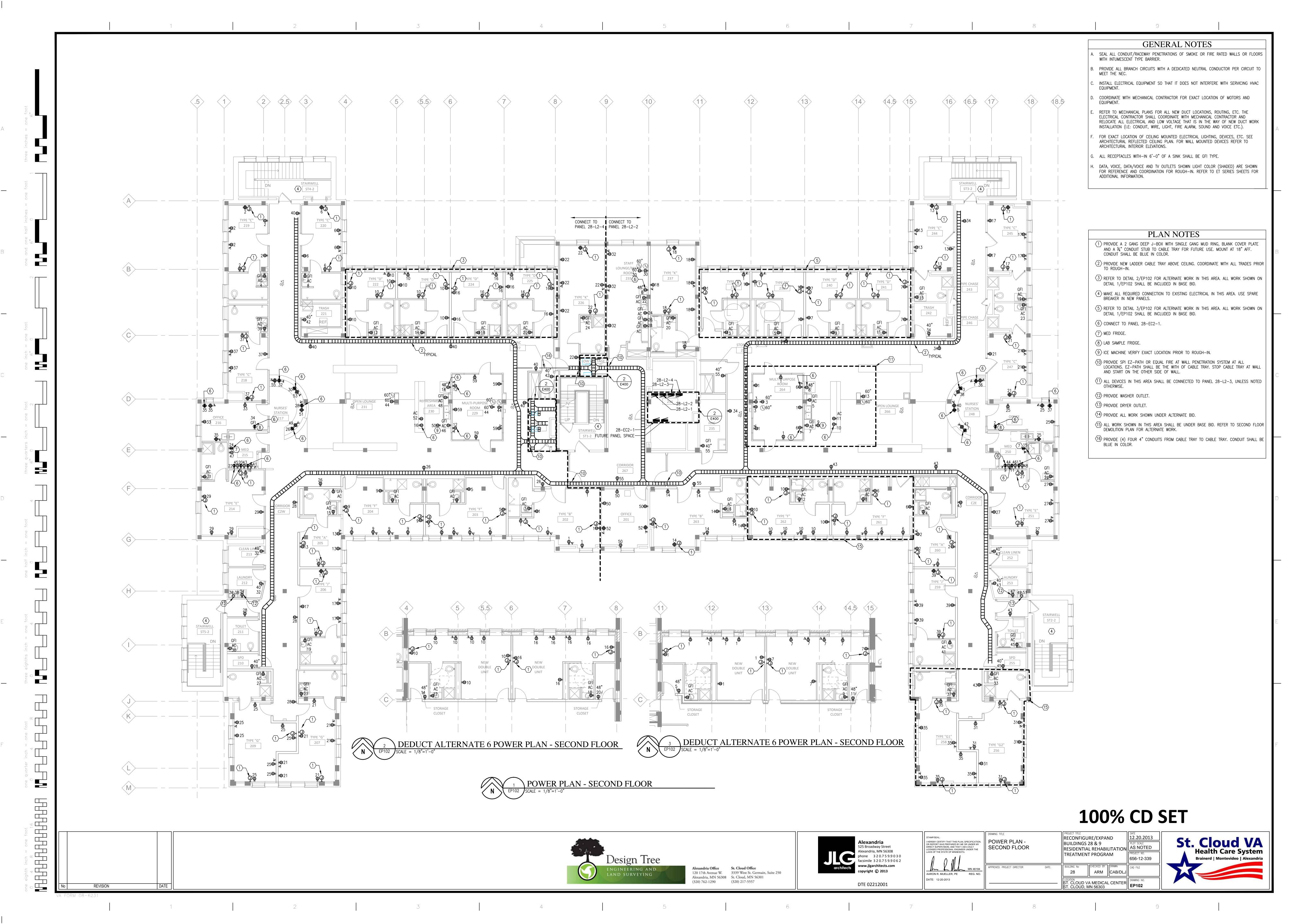
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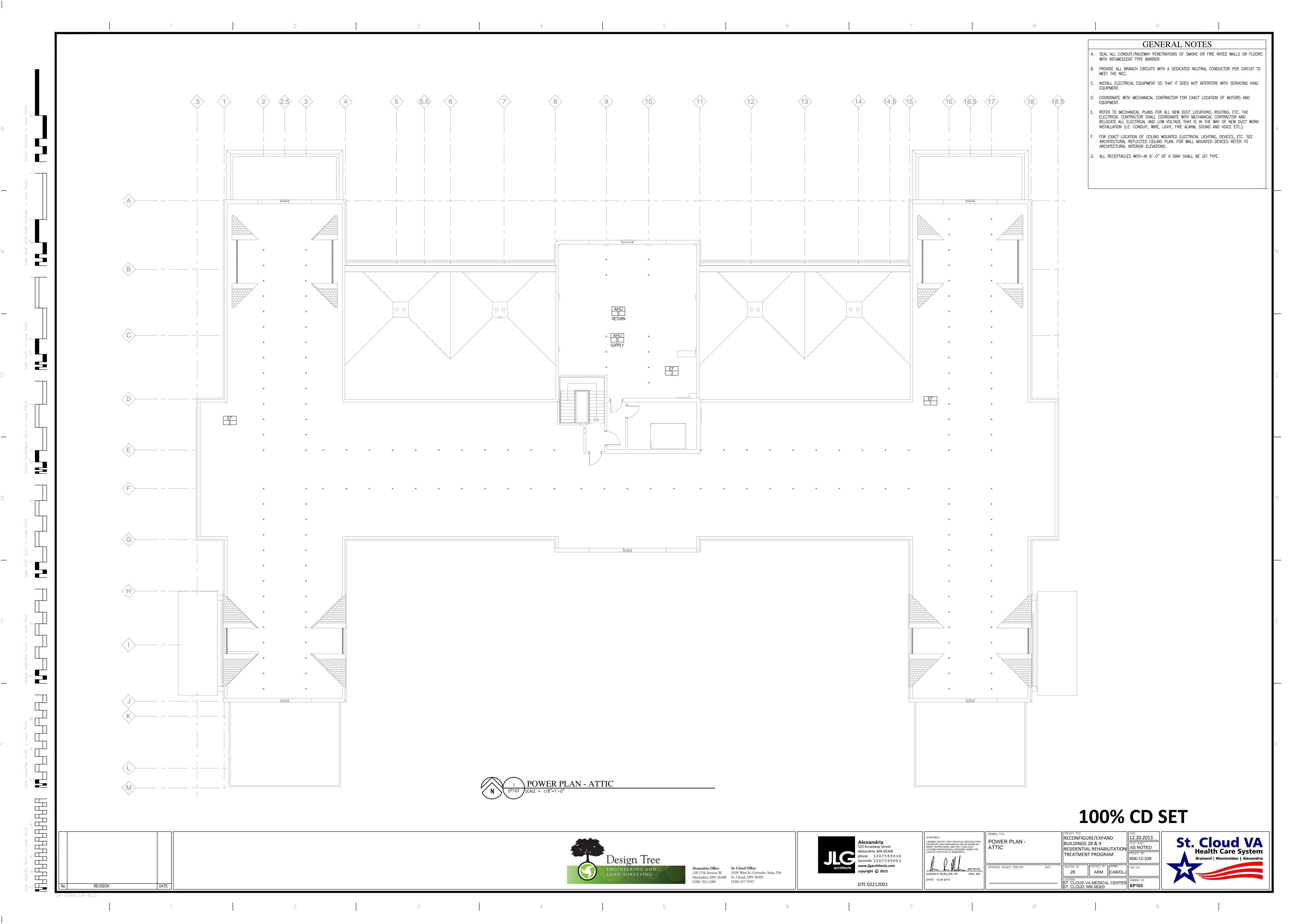
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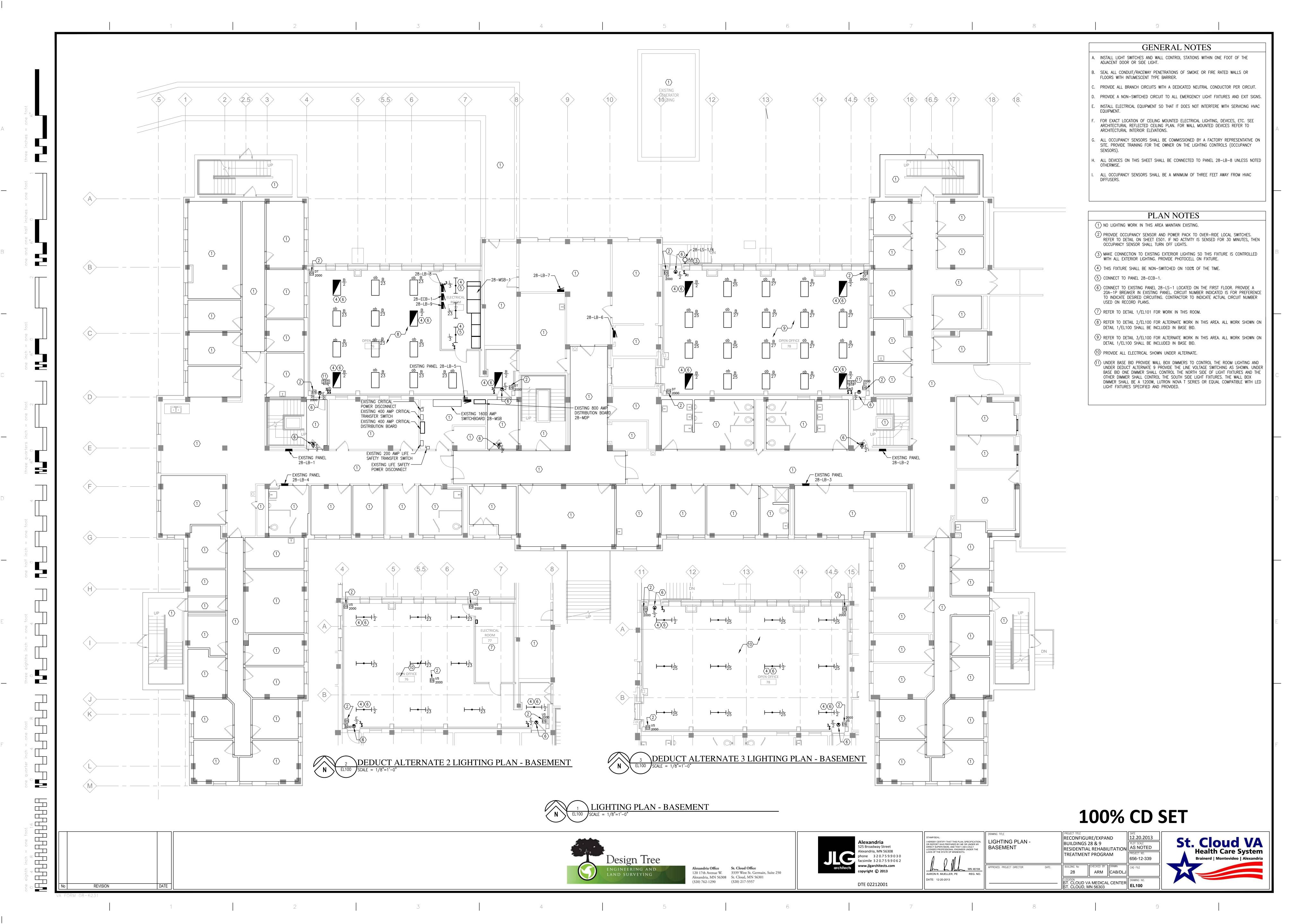
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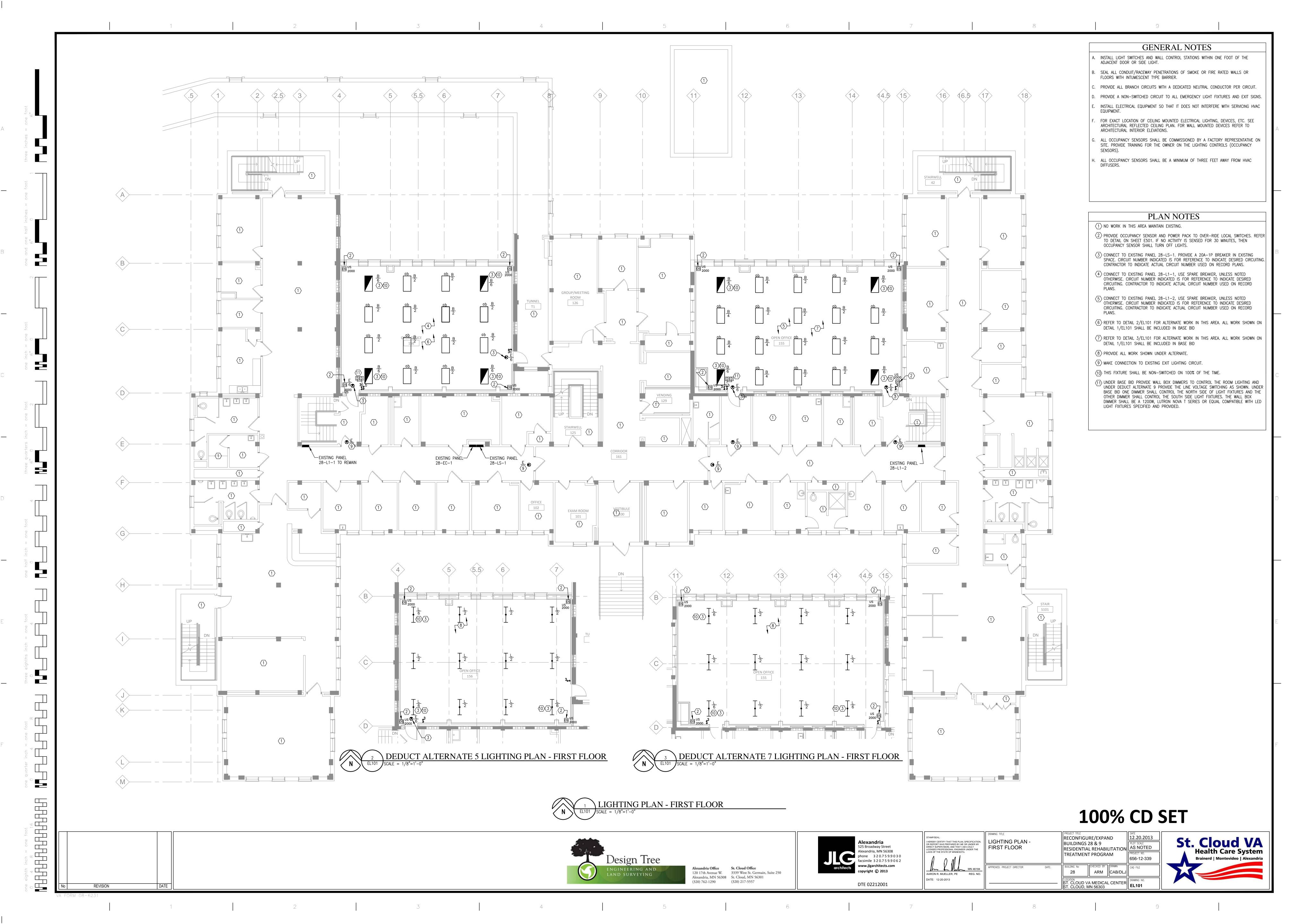


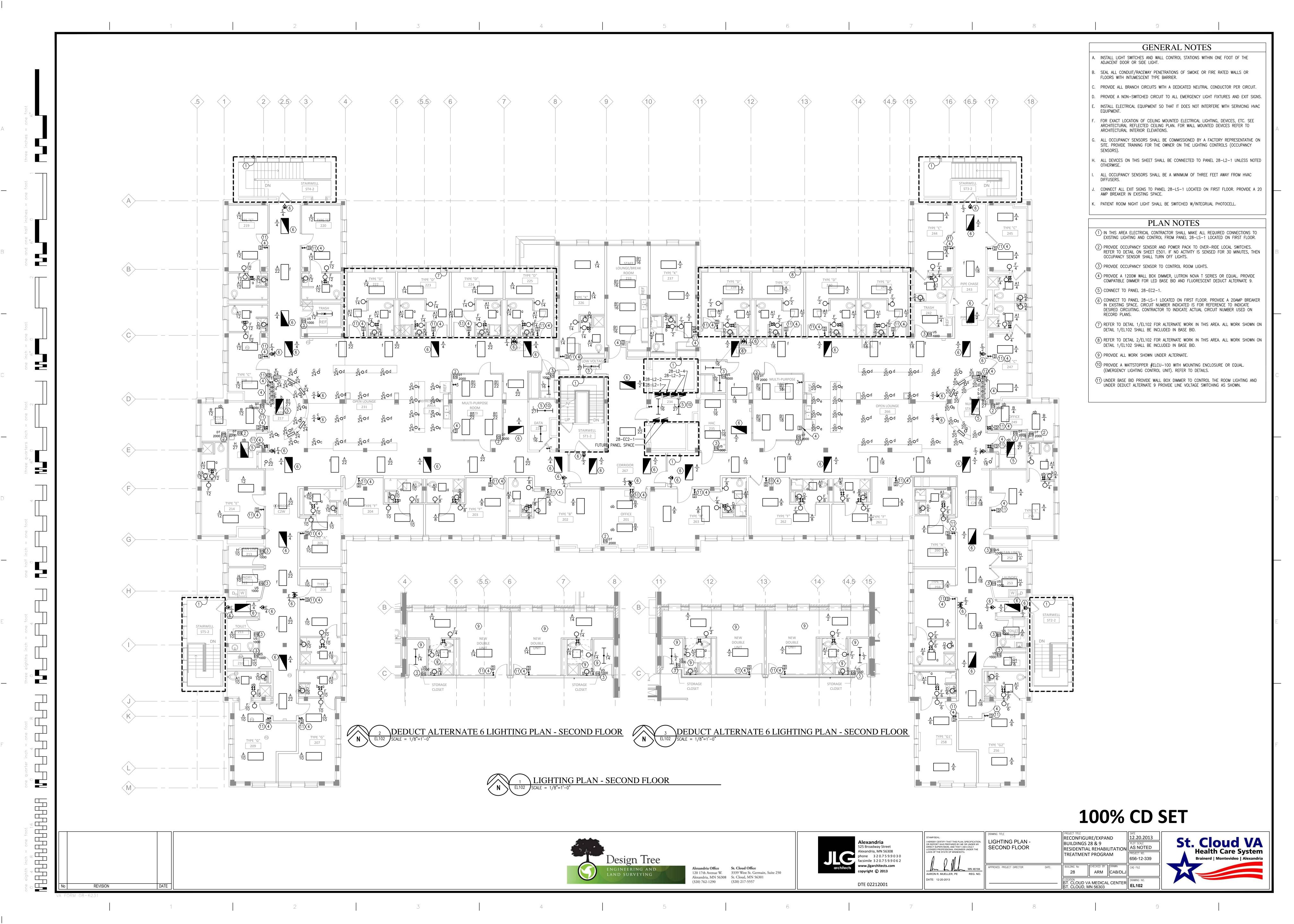


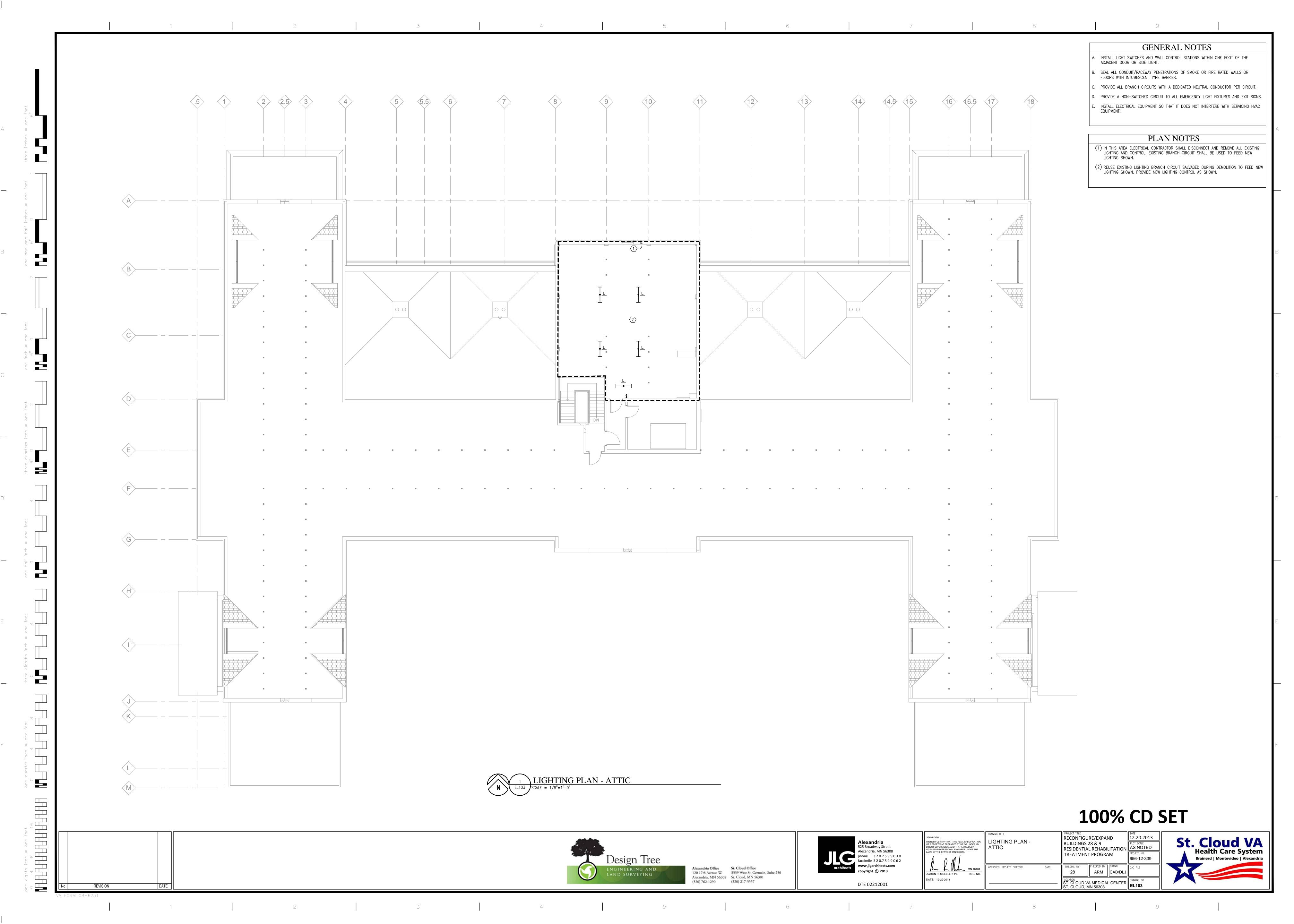


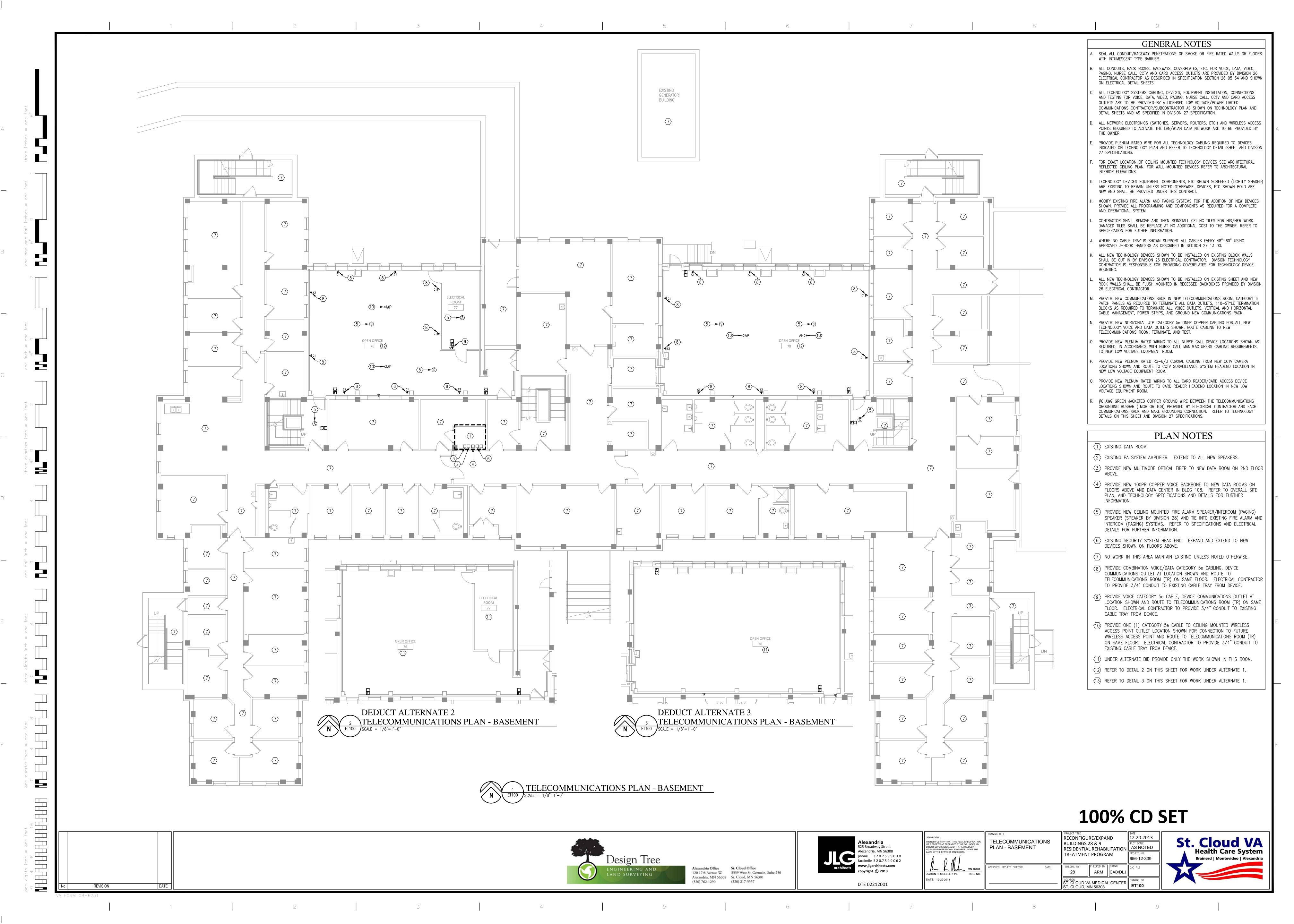


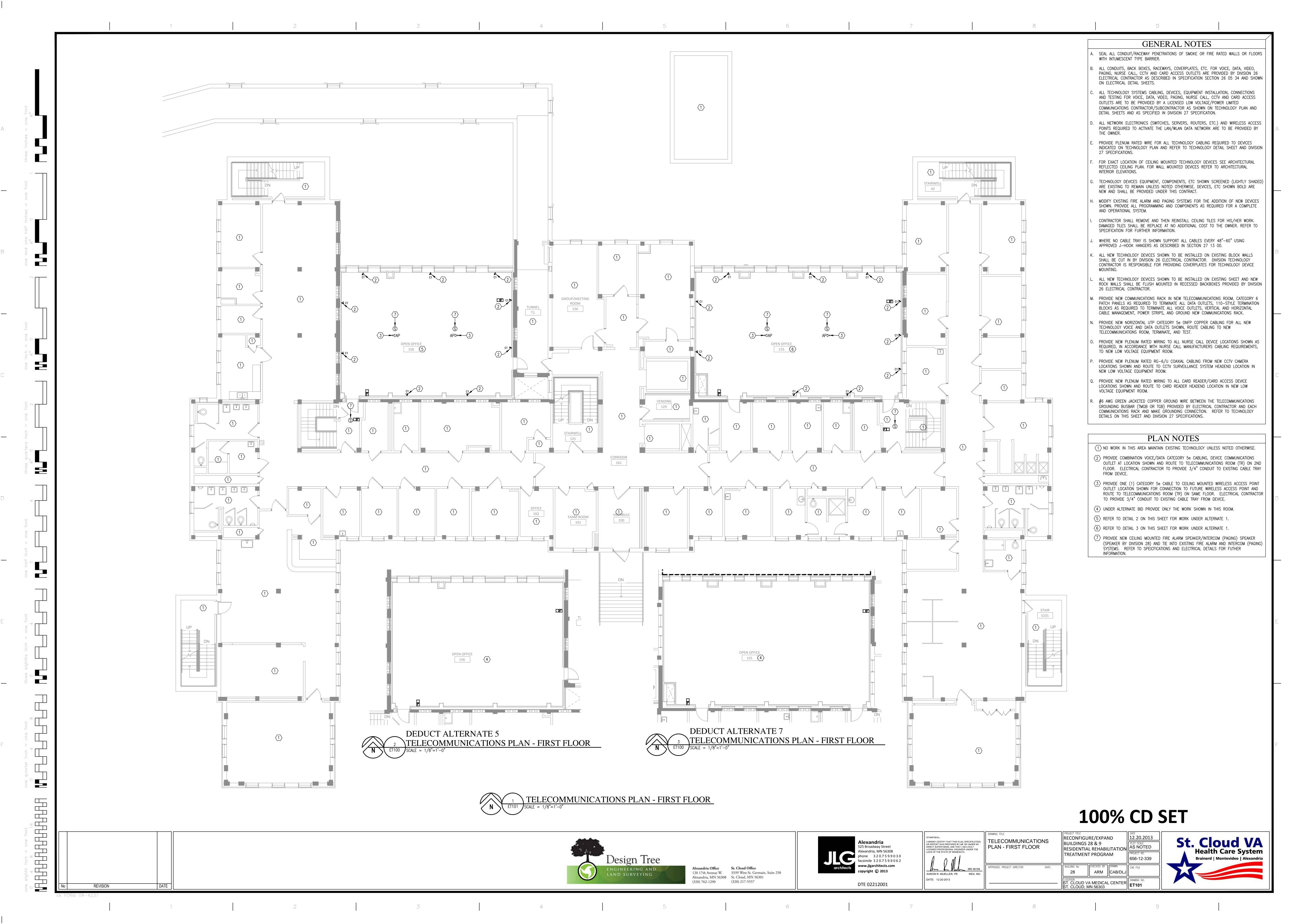


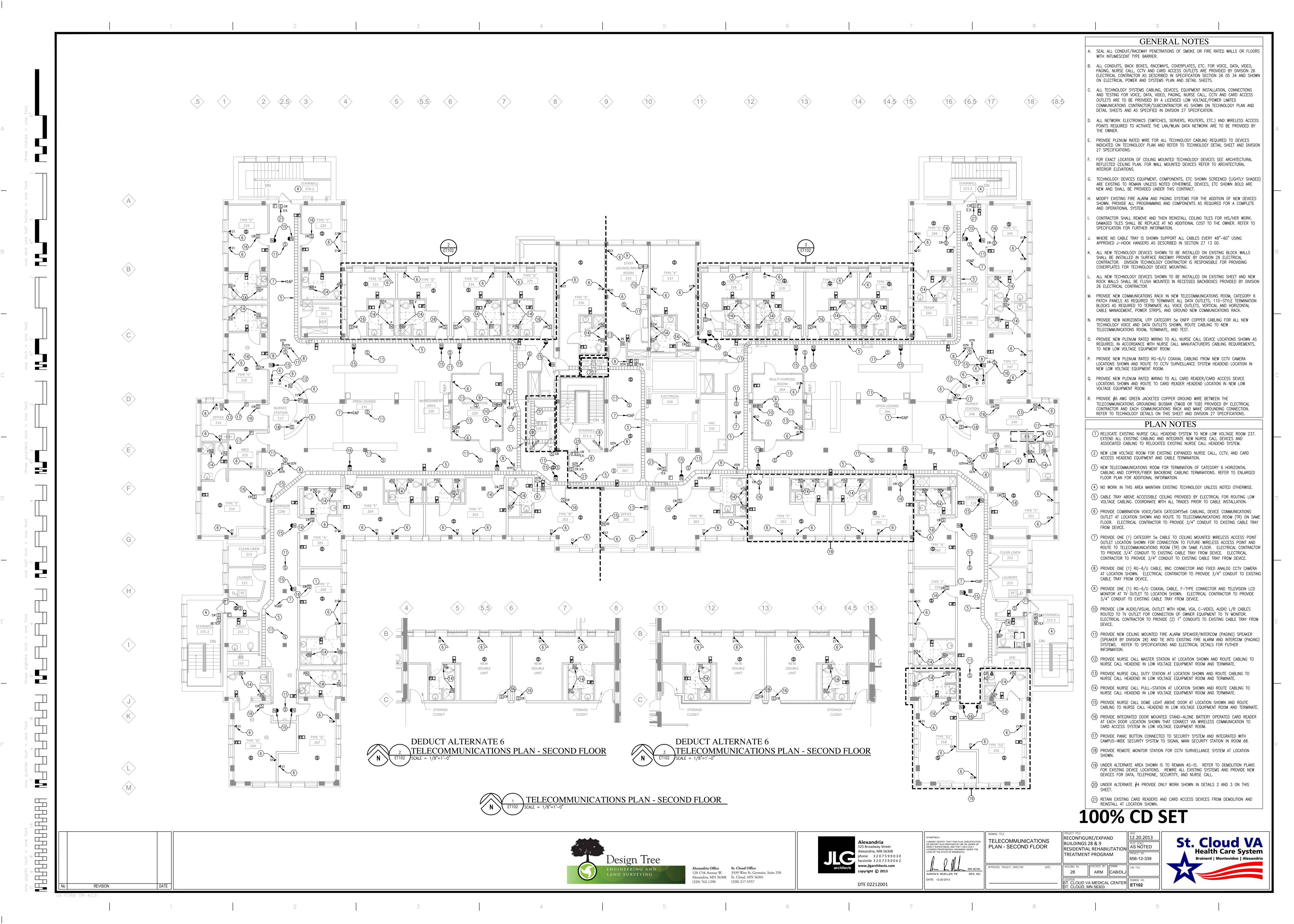


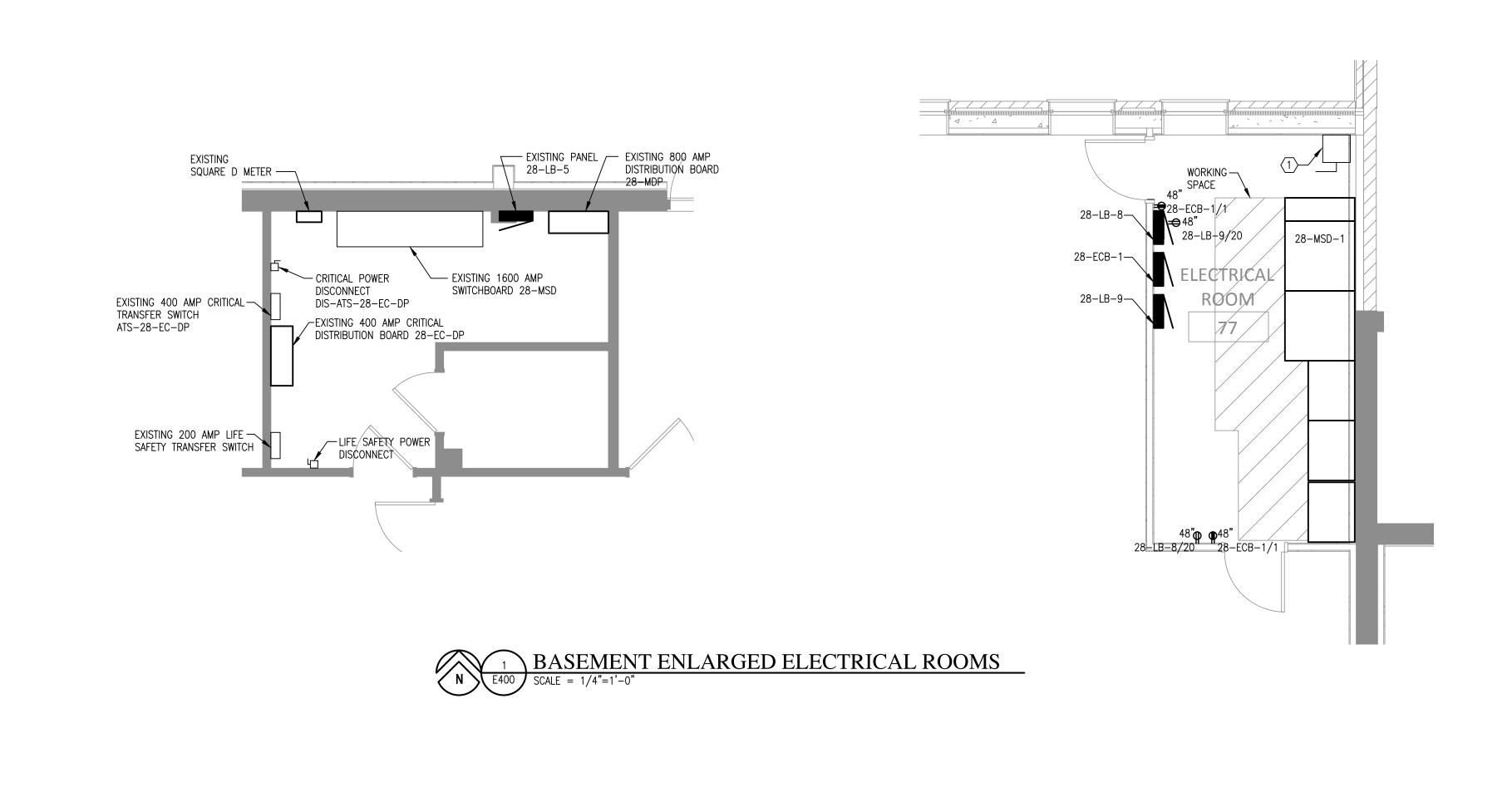


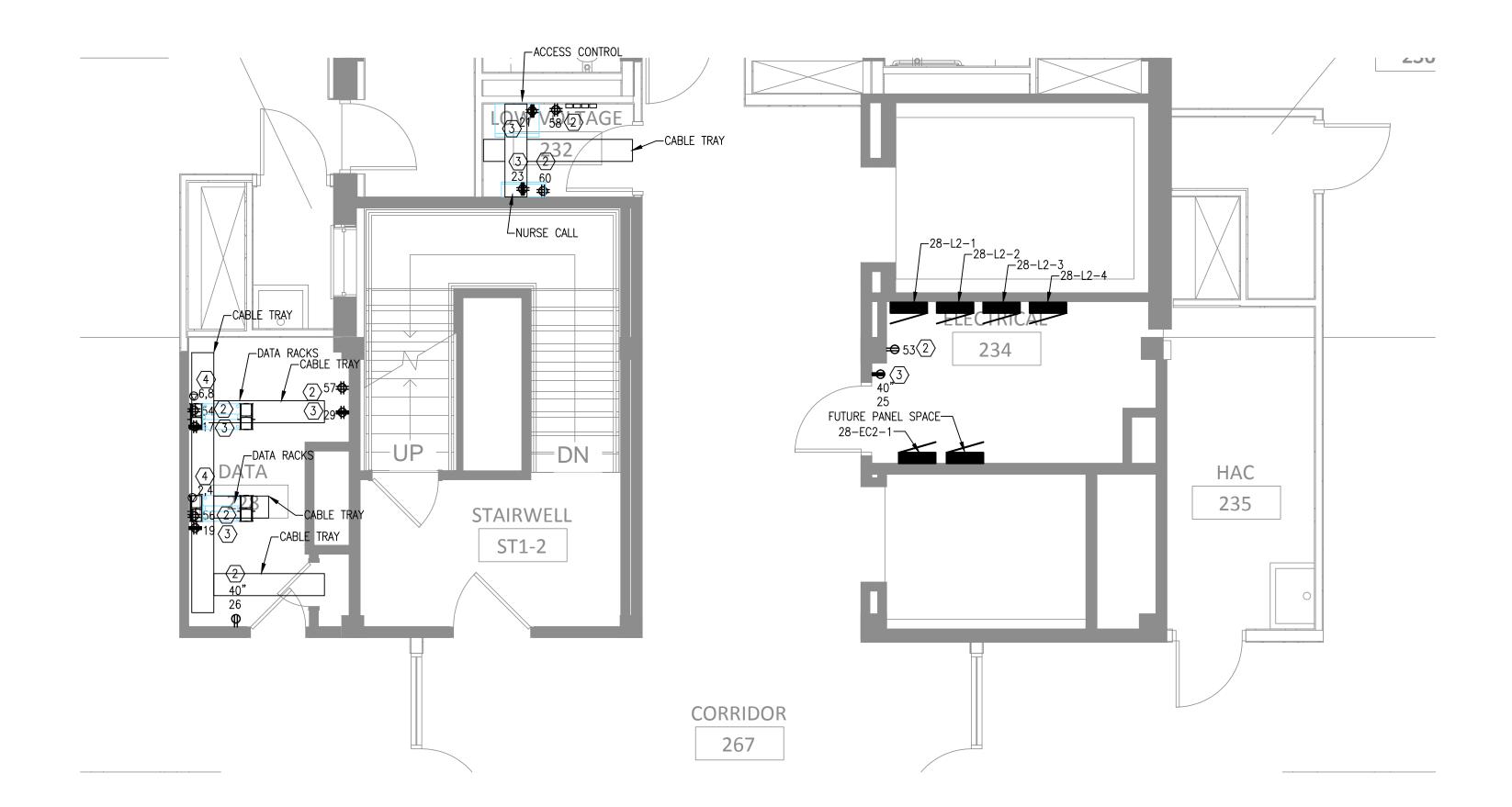












SECOND FLOOR ENLARGED ELECTRICAL, DATA AND LOW VOLTAGE ROOMS

SCALE = 1/4"=1'-0"

16

### **100% CD SET**

PLAN NOTES

2 MAKE CONNECTION TO PANEL 28-L2-2.

(3) MAKE CONNECTION TO PANEL 28-EC2-1.

4 CONNECT TO PANEL 28-L2-3.

1) PROVIDE AN 400A/3P DISCONNECT FOR CRITICAL FEED FROM GENERATOR. REFER TO POWER RISER FOR ADDITIONAL INFORMATION.



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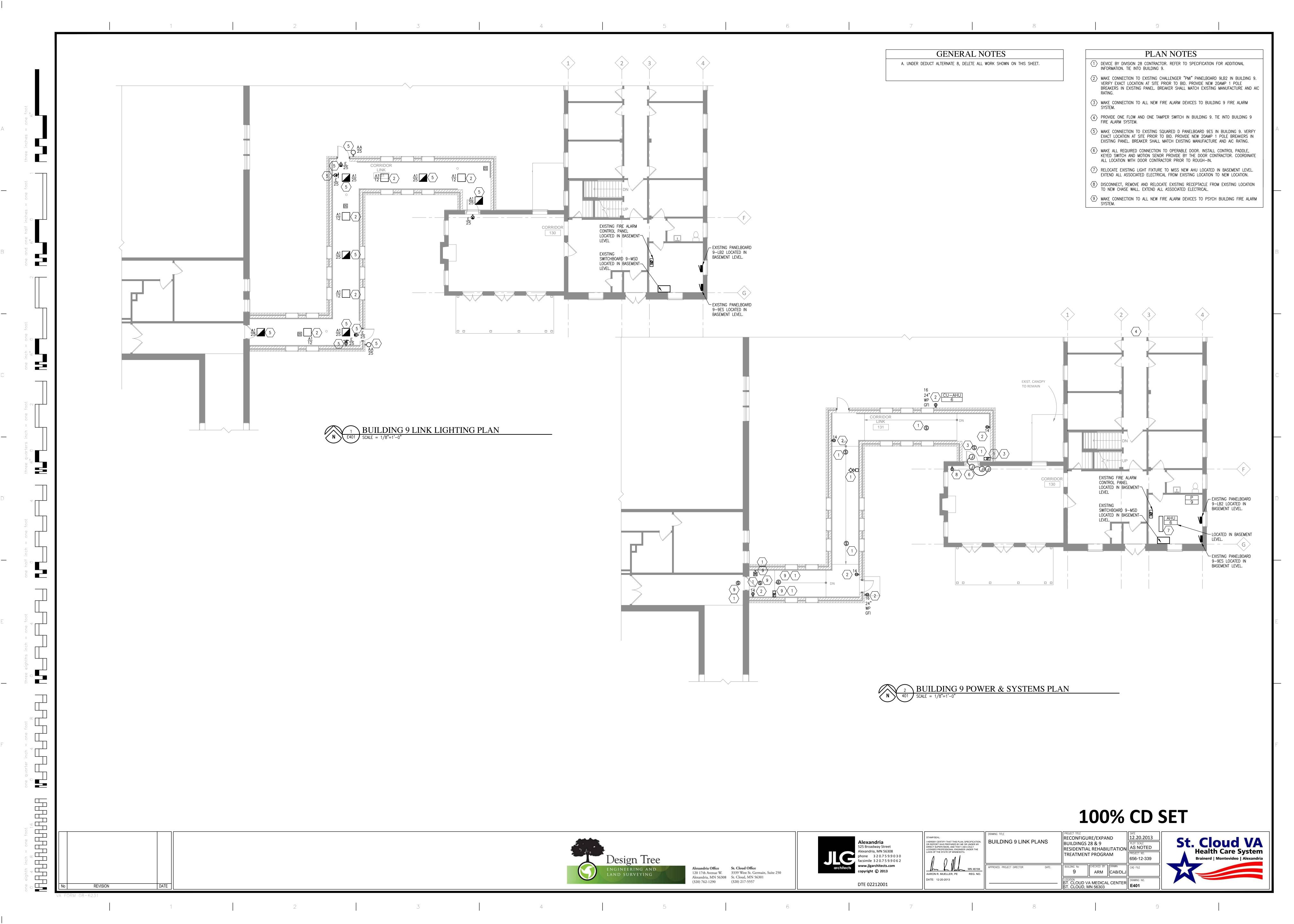
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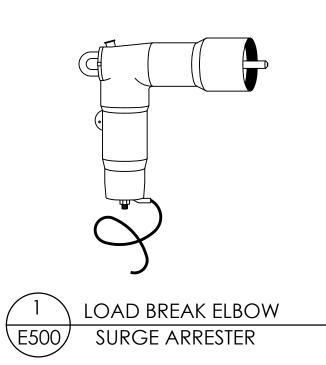
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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.	EI PI
MN 46184_	APP
AARON R. MUELLER, PE REG. NO.	
DATE: 12-20-2013	
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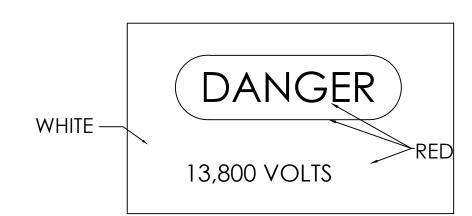
DRAWING TITLE ENLARGED ELECTRICAL PLANS	PROJECT TITLE RECONFIGU BUILDINGS TRESIDENTIA	28 & 9		DATE 12.20.2013  PLOT SCALE AS NOTED
	TREATMEN	T PROGR <i>A</i>	AM	PROJECT NO. 656-12-339
APPROVED: PROJECT DIRECTOR DATE:	BUILDING No 28	CHECKED BY  ARM	DRAWN CAB/DLJ	CAD FILE
	ST. CLOUD V.		L CENTER	DRAWING NO.





	13	3.8 KV TRA	ansforme	R SCHEDU	LE		
	TRANSFORMER (By Building)	TYPE	PRIMARY VOLTAGE	SECONDARY VOLTAGE	CONNECTION TYPE	RATING	REMARKS
TF-28	BUILDING 28	PAD	13.8 KV	120/208	DELTA-WYE	750KVA	





### NOTE:

USE "DANGER" SIGNS ON ALL DUCTS, PULLBOXES, AND JUNCTION BOXES CONTAINING CONDUCTORS OPERATING AT POTENTIALS OVER 600 VOLTS. USE "WARNING" SIGNS ON EXTERIOR OF ALL ENCLOSURES CONTAINING. CONDUCTORS OPERATING AT POTENTIALS UNDER 600 VOLTS.

#### STANDARD PROPORTIONS ALL DIMENSIONS IN INCHES

917 (110) (110	OT NOT ORTHORNO THE BIN	
SIGN SIZE	RED OVAL	WORD DANGER
Min. Height Width	Height Width	Height
3 1/2 x 5	1 7/16 x 4 1/4	23/32

"DANGER" / "WARNING" SIGN

2 EQUIPMENT WARNING SIGNS E500) NO SCALE

### EQUIPMENT NAME

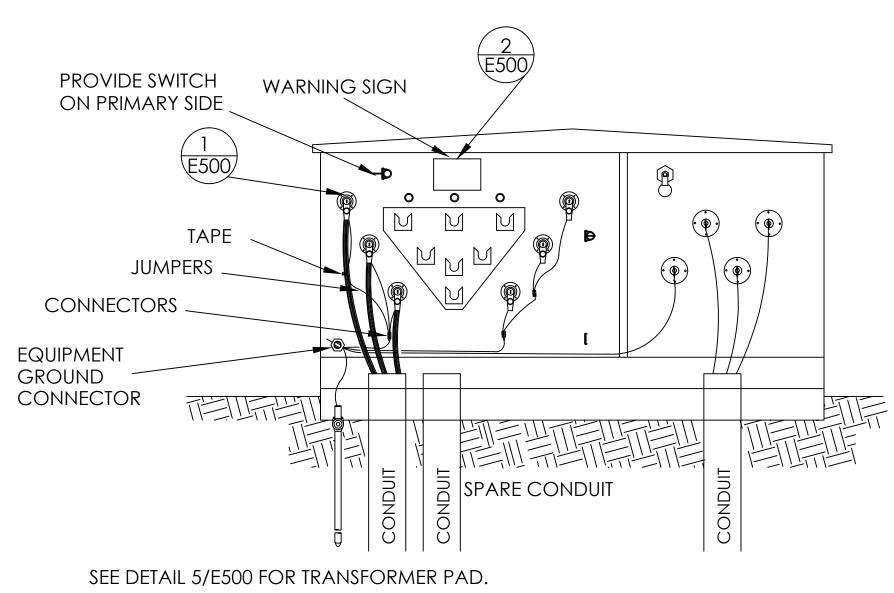
PRIMARY DISCONNECT LOCATION, SIZE/FUSE AND FEEDER SIZE(CONDUIT AND CONDUCTORS). SECONDARY DISCONNECT LOCATION, SIZE/FUSE AND FEEDER SIZE(CONDUIT AND CONDUCTORS). DATE, TRANSFORMER POWER FACTOR, TRANSFORMER SIZE IF FEED FROM TRANSFORMER IF SERVICE RATED LABEL "SERVICE EQUIPMENT RATED". AIC RATING.

USE "WARNING" SIGNS ON EXTERIOR OF ALL ENCLOSURES CONTAINING. CONDUCTORS OPERATING AT POTENTIALS UNDER 600 VOLTS.

THE ABOVE LABELING IS MINIMUM REQUIRED ALSO ADD ALL LABELING PER NEC.

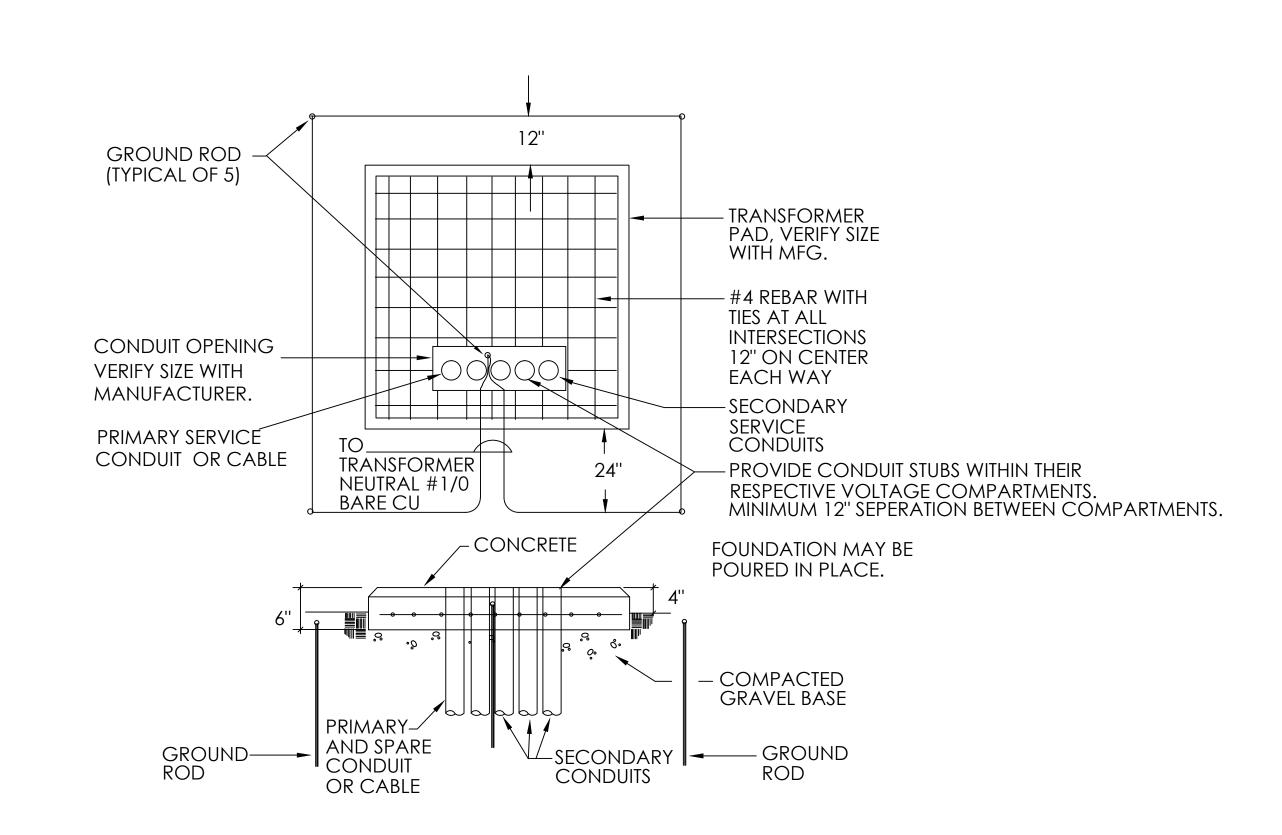
LABEL SHALL BE ATTACHED TO THE FRONT OF EQUIPMENT WITH BOLTS OR RIVETS.



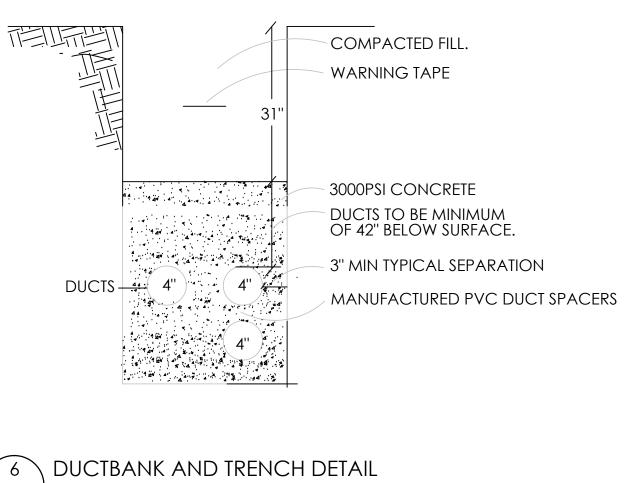


THREE PHASE PAD MOUNTED TRANFORMER E500 NO SCALE

TRANSFORMER BY CONTRACTOR. **INCLUDING FEATURES:** ADJUSTABLE TAP SETTINGS. **BAYONET FUSES** PRIMARY ROTARY SWITCH (OIL COMPARTMENT) OIL SAMPLE PORT ON SECONDARY SIDE LOCKABLE DOOR SEE SPECIFICATIONS 26-12-19



5 NEW TRANSFORMER PAD DETAIL E500 NO SCALE



6 DUCTBANK AND TRENCH DETAIL E500 NO SCALE

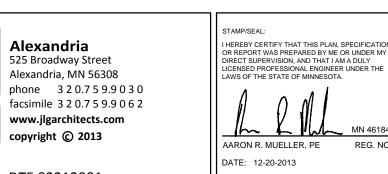
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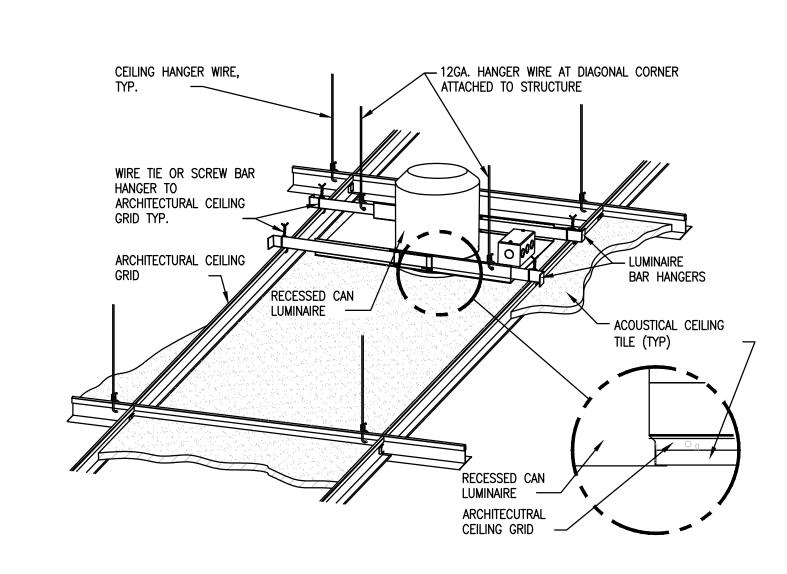
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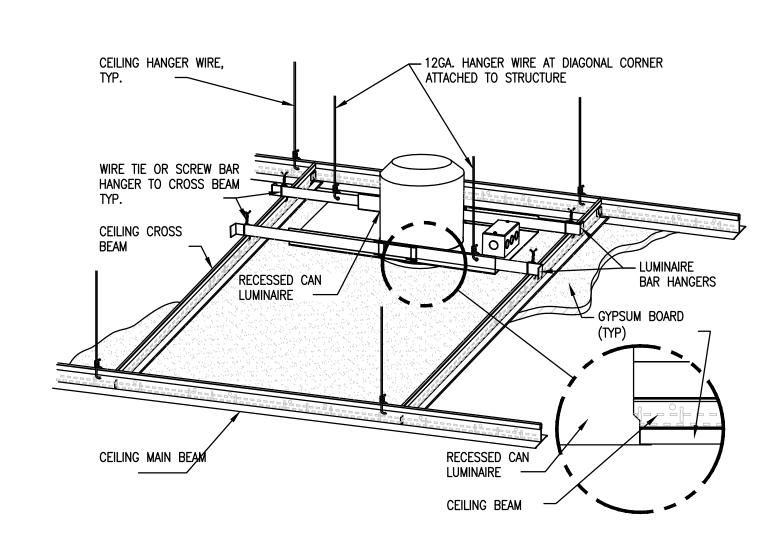
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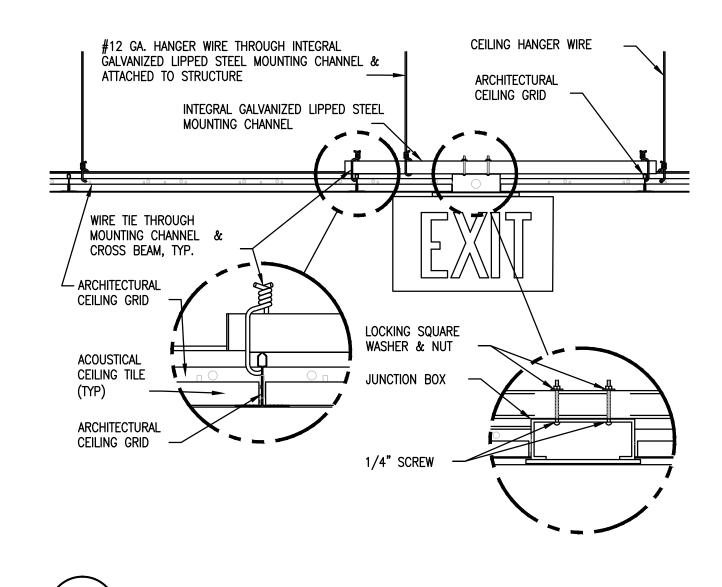
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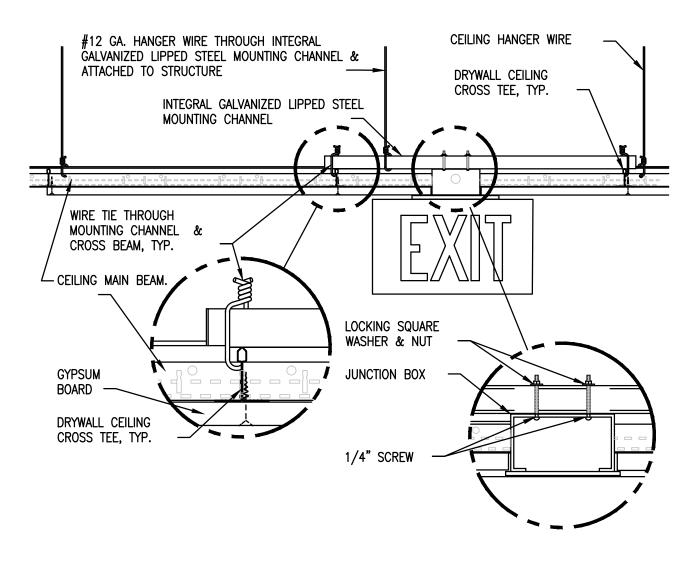
RECONFIGURE/EXPAND
BUILDINGS 28 & 9
RESIDENTIAL REHABILITATION ELECTRICAL DETAILS TREATMENT PROGRAM 28 | CHECKED BY | DRAWN | CAB/DLJ | T. CLOUD VA MEDICAL CENTER E500



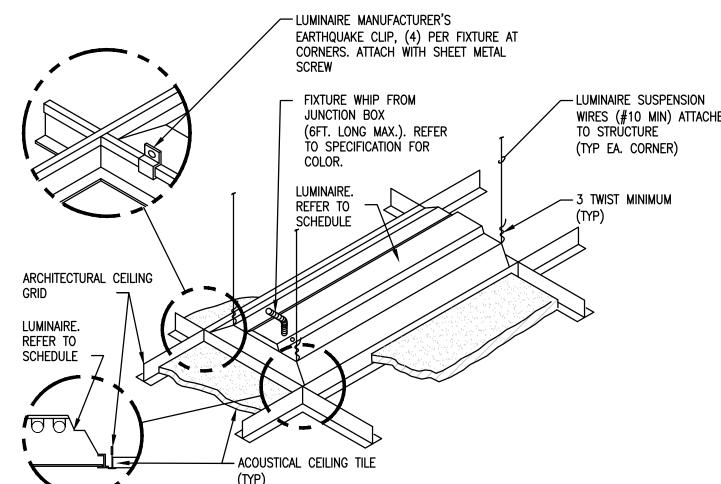








DOWNLIGHT MOUNTING - LAY-IN CEILING

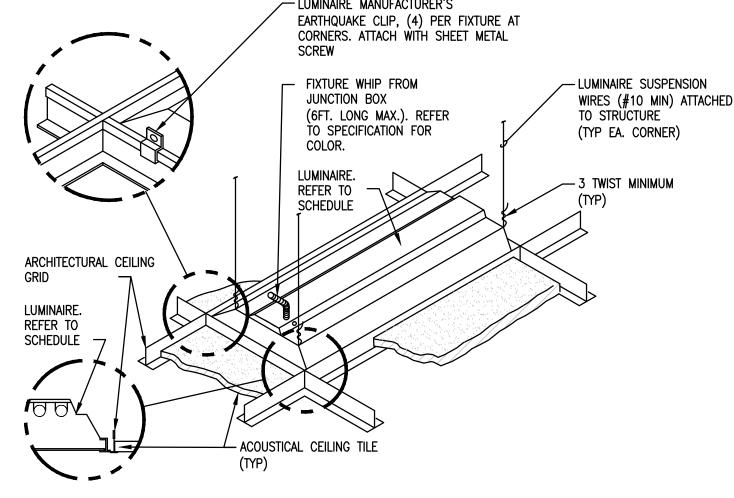


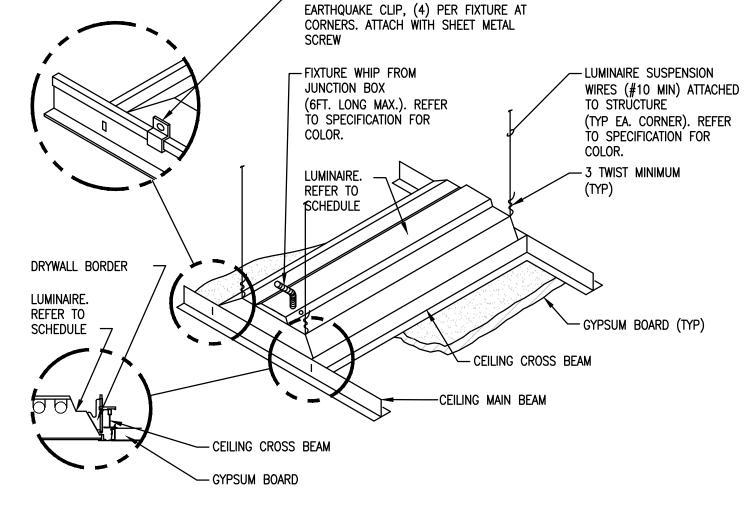
DOWNLIGHT MOUNTING - GYPBOARD CEILING

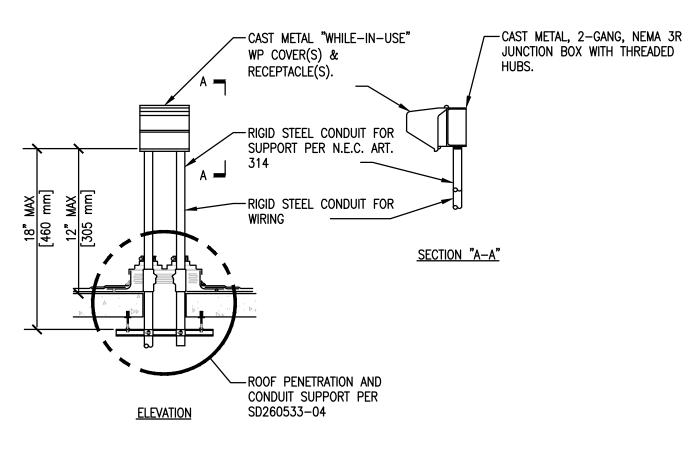
- LUMINAIRE MANUFACTURER'S

EXIT SIGN MOUNTING - LAY-IN CEILING









PROVIDE SIGN(S) ON EXTERIOR OF ALL ENCLOSURES CONTAINING CONDUCTORS OPERATING AT POTENTIALS UNDER 600 VOLTS. THE ABOVE LABELING IS MINIMUM REQUIRED. ALSO ADD ALL LABELING PER NEC.

FED FROM UTILITY TRANSFORMER, (4) 3 1/2" C-4#350 & 1#3/.0 GND

DATE OF INSTALLATION MARCH 12, 2012, 9.6% IMPEDANCE, 750KVA

PROVIDE THE FOLLOWING INFORMATION:

SERVICE EQUIPMENT RATED. 65000 AIC.

LABEL "SERVICE EQUIPMENT RATED". AIC RATING

EQUIPMENT NAME(28-MSB-1)

FEEDER SIZE(CONDUIT AND CONDUCTORS). (4) 3 1/2" C-4#350 & 1#3/.0 GND

DATE OF INSTALL, TRANSFORMER IMPEDANCE, UTILITY TRANSFORMER SIZE (KVA)

LABEL SHALL BE ATTACHED TO THE FRONT OF EQUIPMENT SO IT'S IN SIGHT. LABEL SHALL BE LAMINATED AND FASTENED TO THE EQUIPMENT WITH BOLTS OR RIVETS.

5 LUMINAIRE MOUNTING - LAY-IN CEILING

\LUMINAIRE MOUNTING - GYPBOARD CEILING

7 RECEPTACLE ROOF MOUNTING DETAIL



#### EQUIPMENT NAME (28-LB-8)

PROVIDE THE FOLLOWING INFORMATION: PRIMARY DISCONNECT LOCATION, SIZE/FUSE AND FEEDER SIZE(CONDUIT AND CONDUCTORS). DATE OF INSTALL. IF SERVICE RATED LABEL "SERVICE EQUIPMENT RATED". IF FED BY A TRANSFORMER ADD THE FOLLOWING: POWER FACTOR, TRANSFORMER SIZE (KVA), K RATING. PRIMARY DISCONNECT LOCATION SWBD-1 IN ROOM 12, 200A-3P F@200A, 2" 4#3/0 & 1#6GND. DATE OF INSTALL MARCH 12, 2012.

PER NEC.

PROVIDE SIGN(S) ON EXTERIOR OF ALL ENCLOSURES CONTAINING CONDUCTORS OPERATING AT POTENTIALS UNDER 600 VOLTS. THE ABOVE LABELING IS MINIMUM REQUIRED. ALSO ADD ALL LABELING

TRANSFORMER T-1 LOCATED IN ROOM 10, 9.6% POWER FACTOR, 45KVA, K13 RATED.

LABEL SHALL BE ATTACHED TO THE FRONT OF EQUIPMENT SO IT'S IN SIGHT.

LABEL SHALL BE LAMINATED AND FASTENED TO THE EQUIPMENT WITH BOLTS OR RIVETS.

PROVIDE THE FOLLOWING INFORMATION:

IF SERVICE RATED LABEL "SERVICE EQUIPMENT RATED".

PROVIDE SIGNS ON EXTERIOR OF ALL ENCLOSURES CONTAINING CONDUCTORS OPERATING AT POTENTIALS UNDER 600 VOLTS. THE ABOVE LABELING IS MINIMUM REQUIRED. ALSO ADD ALL LABELING PER NEC.

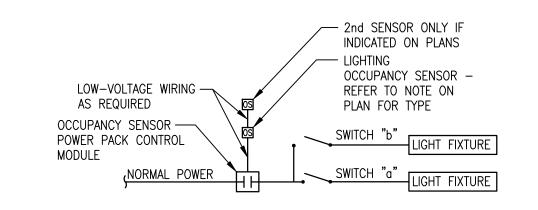
EQUIPMENT NAME (ATS-28-EC-DP)

PRIMARY DISCONNECT LOCATION, SIZE/FUSE AND FEEDER SIZE(CONDUIT AND CONDUCTORS).

SECONDARY FEEDER SIZE (CONDUIT AND CONDUCTORS) AND WHAT IT FEEDS AND LOCATION.

LABEL SHALL BE ATTACHED TO THE FRONT OF EQUIPMENT SO IT'S IN SIGHT. LABEL SHALL BE LAMINATED AND FASTENED TO THE EQUIPMENT WITH BOLTS OR RIVETS.

10 DISCONNECT LABEL



11 TYPICAL ROOM LIGHTING CONTROL DETAIL

9 \PANELBOARD LABEL

IF SERVICE RATED LABEL "SERVICE EQUIPMENT RATED".

Design Tree

1 2 5

(320) 217-5557



DATE: 12-20-2013

RECONFIGURE/EXPAND ELECTRICAL DETAILS BUILDINGS 28 & 9
RESIDENTIAL REHABILITATION

PLOT SCALE
AS NOTED TREATMENT PROGRAM 28 ARM CAB/DLJ

**100% CD SET** 

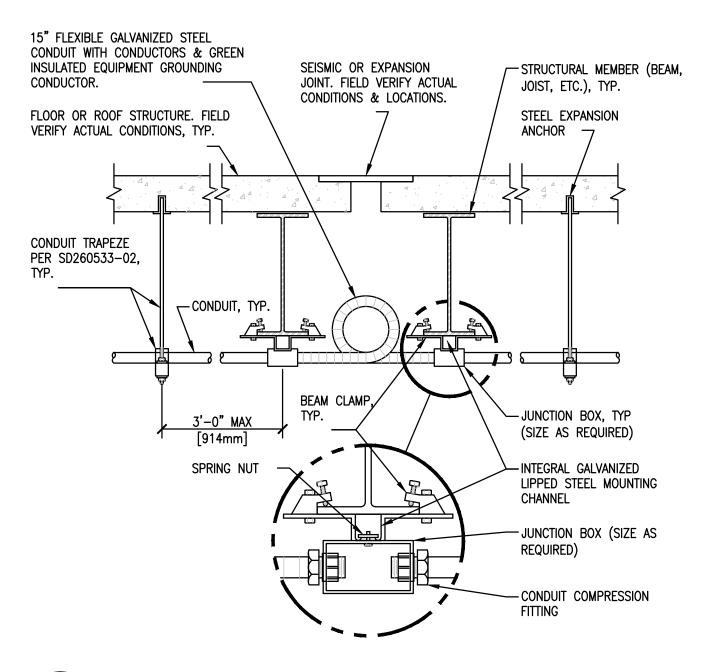


AND SURVEYING

Alexandria Office St. Cloud Office 120 17th Avenue W. 3339 West St. Germain, Suite 250 Alexandria, MN 56308 St. Cloud, MN 56301

DTE 02212001

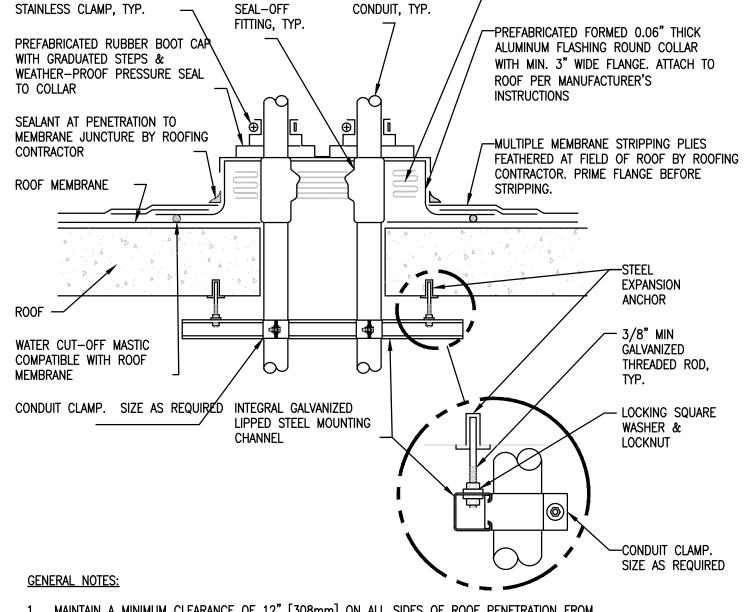
T. CLOUD VA MEDICAL CENTER E501



CONDUIT JOINT CROSSING DETAIL

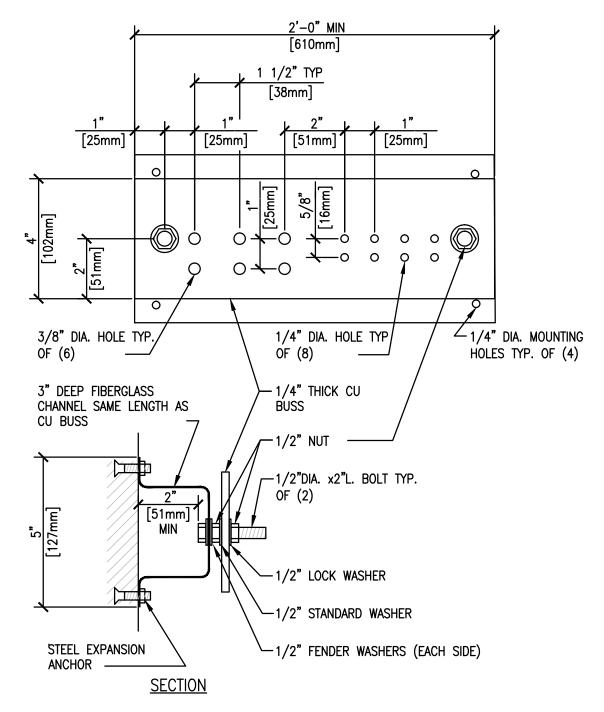
CONDUIT, TYP ---- MINERAL WOOL (FIRMLY PACKED) FIRESTOP SEALANT PER SECTION 07 84 00, — INTEGRAL GALVANIZED LIPPED FIRESTOPPING STEAL MOUNTING CHANNEL, FLOOR SLAB, - STEEL EXPANSION ANCHOR, ∠ CONDUIT COMPRESSION FITTING, JUNCTION BOX (SIZE AS REQUIRED)

**\FLOOR SLAB PENETRATION DETAIL** 



- MAINTAIN A MINIMUM CLEARANCE OF 12" [308mm] ON ALL SIDES OF ROOF PENETRATION FROM
- WALLS, CURBS, AND OTHER PROJECTIONS TO FACILITATE PROPER FLASHING. 2. FLANGES OF ADJACENT FLASHINGS SHALL NOT BE CUT OR OVERLAPPED.
- 3. VERIFY ROOF & STRUCTURAL SYSTEM WITH ARCHITECT.
- 4. COORDINATE FLASHING INSTALLATION WITH ROOFING CONTRACTOR TO ENSURE PROPER METHODS & MATERIALS ARE USED TO MAINTAIN ROOF WARRANTY.

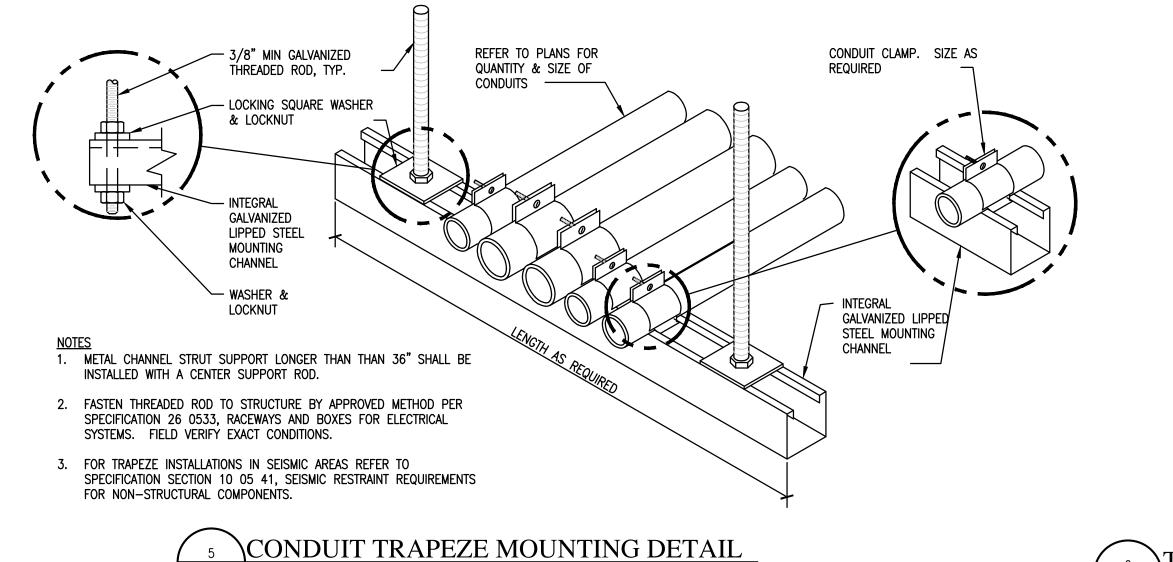
**\ROOF PENETRATION DETAIL** 

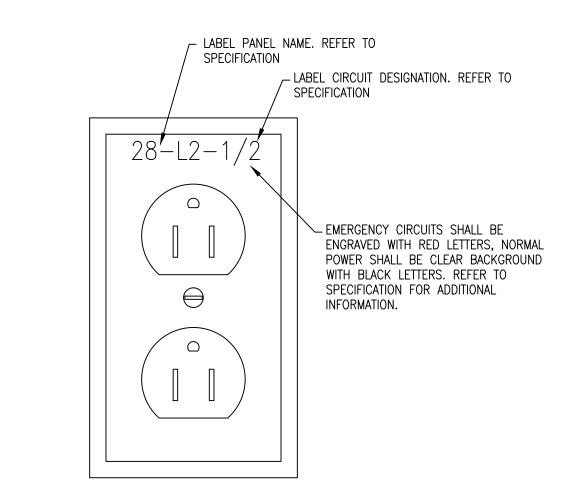


1. ALL HARDWARE SHOWN SHALL BE STAINLESS STEEL.

- 2. PROVIDE 1 MOUNTING POINT PER 12" OF BAR LENGTH.
- 3. HOLES MAY BE ADDED IF REQUIRED.

GROUNDING BAR DETAIL





6 TYPICAL RECEPTACLE LABELING DETAIL

	R	EPLACEMENT A	AND PROPOSED OU	TAGE SCHEDULE	
NUMBER	ANTICIPATED LENGTH OF WORK	WORK PERIOD	REMARKS	BUILDING	MAXIMUM DE-ENERGIZED INTERUPTION
ATS-28-CP	8 HOURS	AFTER HOURS	TEMPORARY JUMPERS REQUIRED	28 AND GENERATOR	MOMENTARY
TEMP. SERVICE	8 HOURS	AFTER HOURS		28	8 HOURS
NEW SERVICE	8 HOURS	AFTER HOURS		28	8 HOURS

"MOMENTARY" DE-ENERGIZED INTERUPTION IS TO BE LIMITED ONLY TO THE LENGTH OF TIME NECESSARY VERIFY WITH OWNER DAY OF SCHEDULE SHUT DOWN IS OK TO PROCEED. (30 MINUTES ONLY) TO MAKE FINAL ELECTRICAL CONNECTIONS AND/OR TO MAKE TEMPORARY CONNECTIONS. CONTRACTOR TO SUBMIT WORK PLAN AND ESTIMATED TOTAL DE-ENERGIZED TIME TO THE OWNER AND ENGINEER FOR REVIEW AND APPROVAL.

FOR ALL ATS TEMPORARY AND CONNECTION SHUT DOWNS ADVISE OWNER ON APPROXIMATELY THE LENGTH OF TIME FOR CONNECTION AT EACH ATS, GEAR, ETC AT LEAST TWO WEEK IN ADVANCE OF SHUT DOWN. PROVIDE A WRITTEN OPERATION SEQUENCE OF ALL WORK ASSOCIATED FOR EACH SHUT

ANY WORK CONSIDERED "HOT WORK" SHALL REQUIRED SERVICE LINE AND HOSPITAL DIRECTOR APPROVAL. EXAMPLE: METERING 13,800 CABLES TO VERIFY DE-ENGERGIZED.

AFTER MAY 15 AND BEFORE SEPTEMBER ALL SHUT DOWN SHALL BE ONLY 4 HR MAXIMUM.

SCHEDULE COORDINATION MEETING FOR EACH SHUT DOWN TWO WEEKS PRIOR TO WORK BEING

ON ALL BREAKS TO EXISTING LOOP SHALL BE MAXIMUM OF 8 HRS.

# **100% CD SET**



1 2 5 7

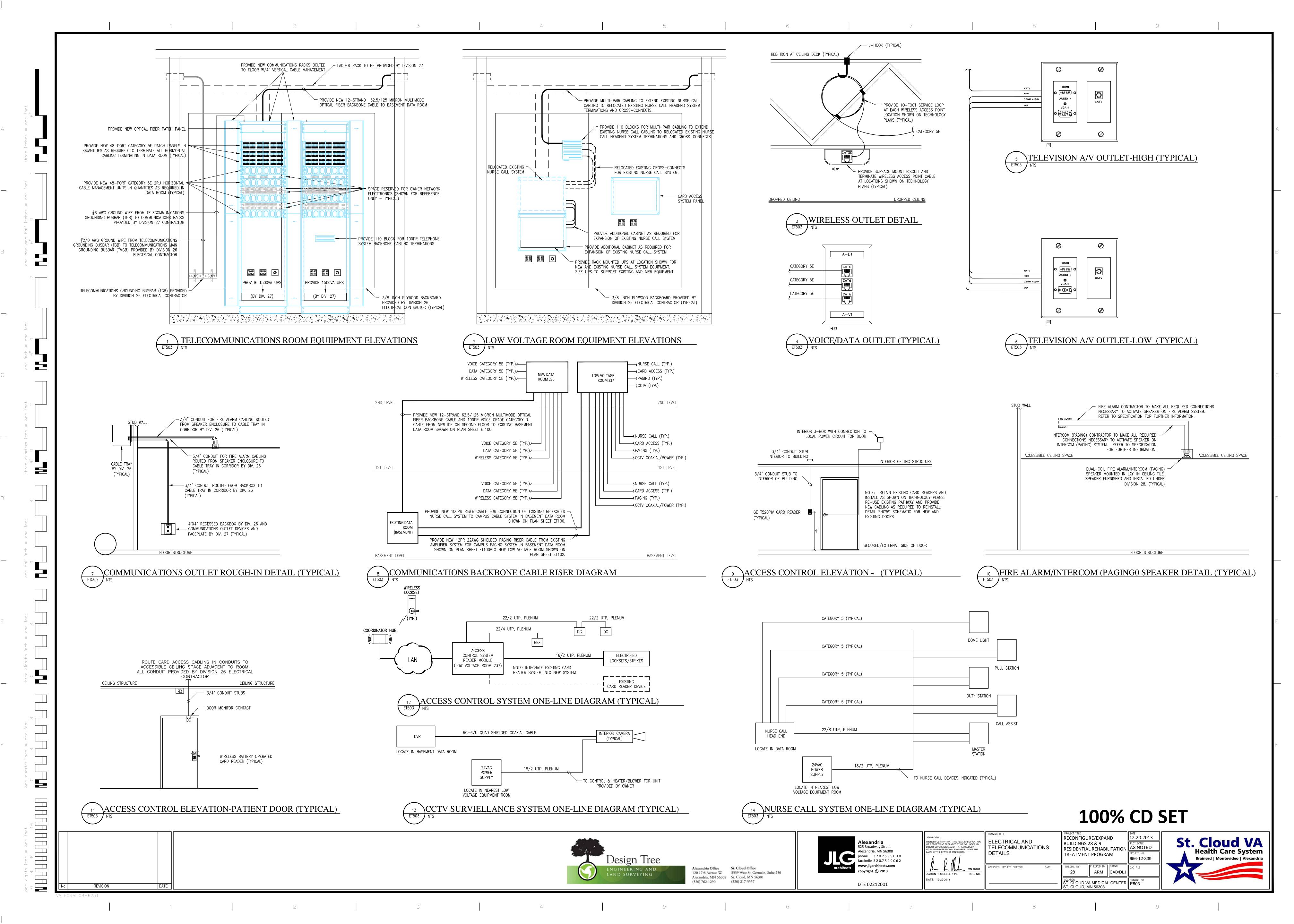
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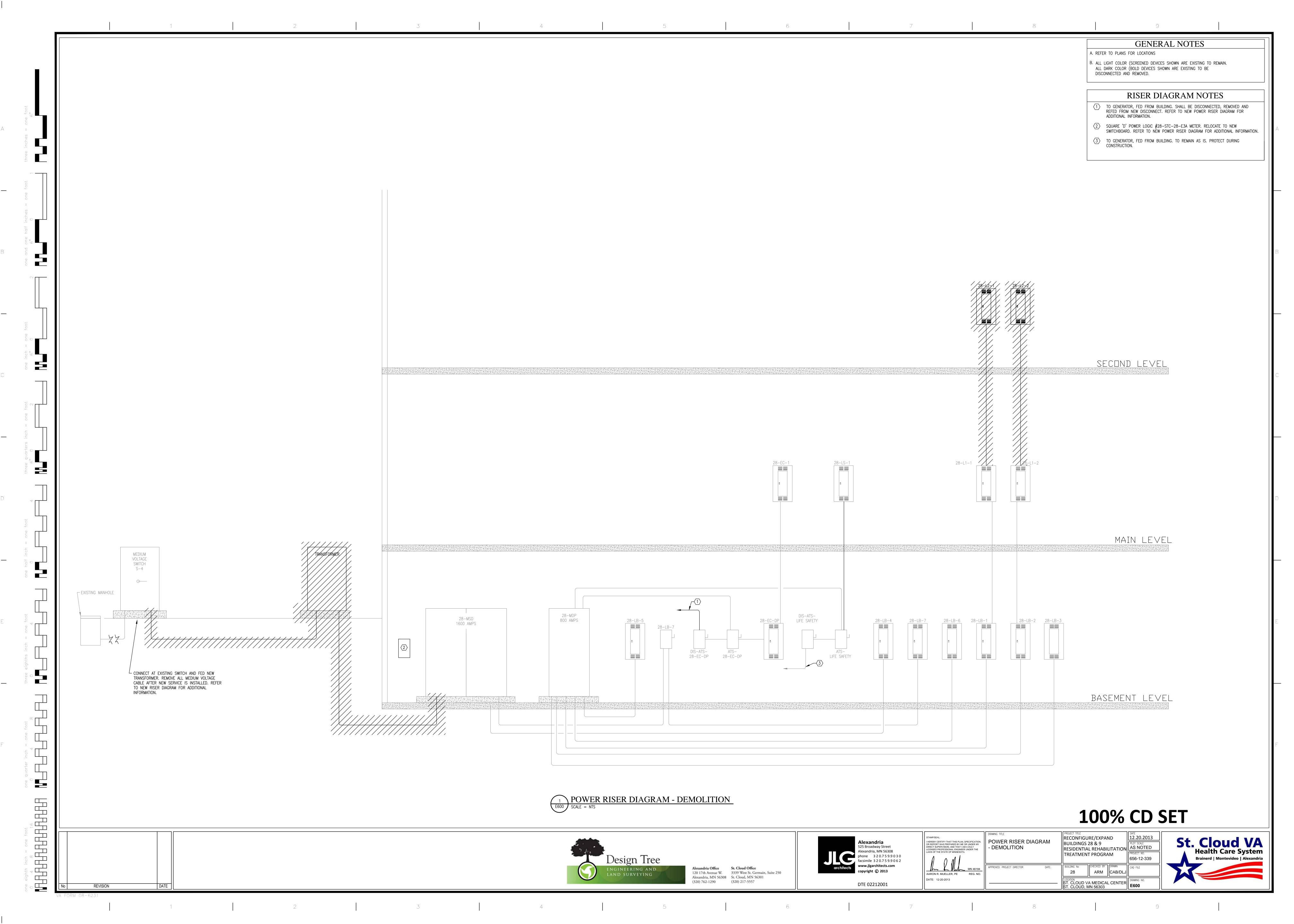


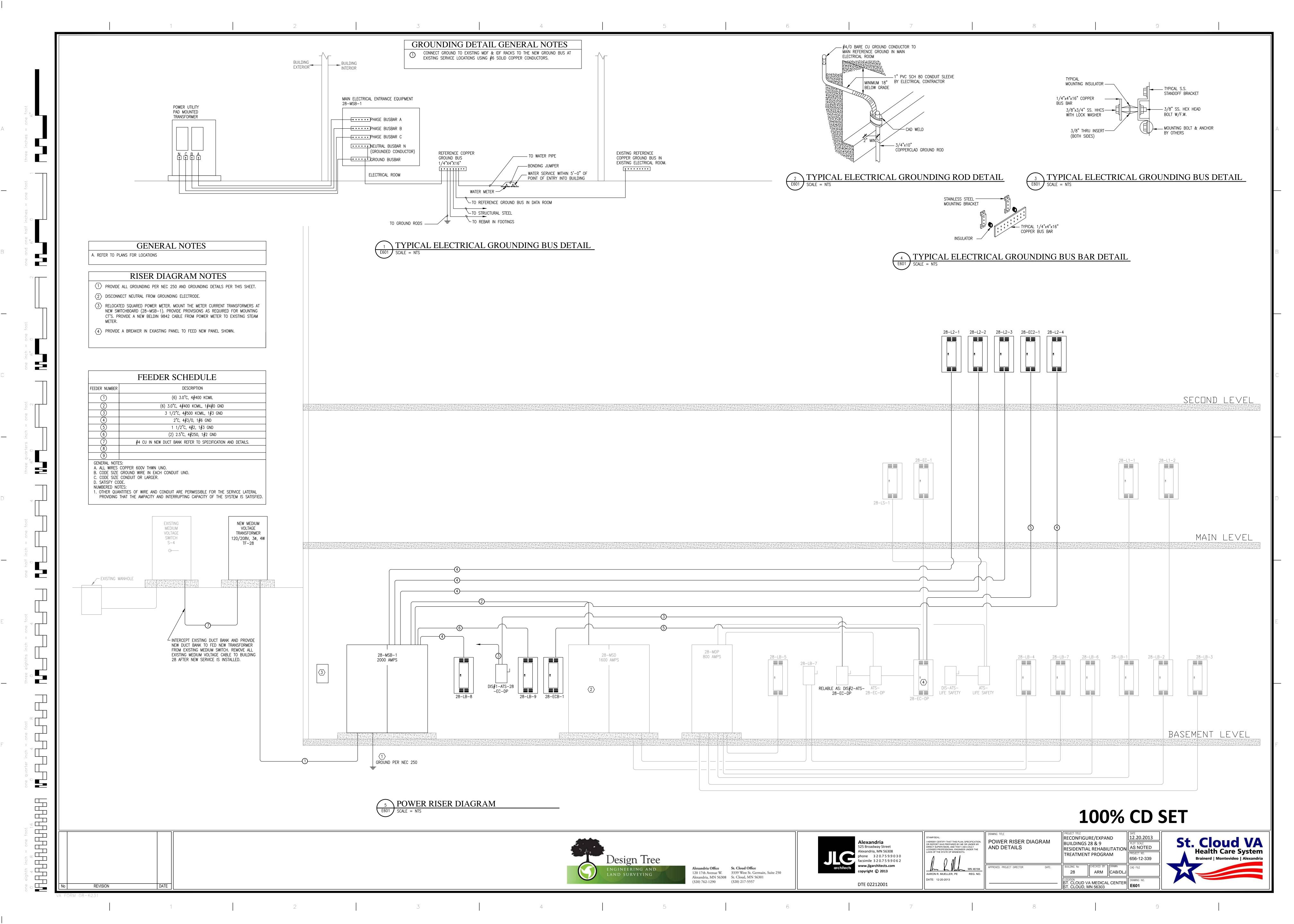
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RECONFIGURE/EXPAND
BUILDINGS 28 & 9
RESIDENTIAL REHABILITATION ELECTRICAL DETAILS TREATMENT PROGRAM APPROVED: PROJECT DIRECTOR 28 ARM CAB/DLJ ST. CLOUD VA MEDICAL CENTER E502









			DASE D	ID LIGHT FIXTURE SC	NEDULE	_	
YPE A	FIXTURE TYPE 2x4 VOLUMETRIC TROFFER	MOUNTING RECESSED LAY-IN	LAMP TYPE 4800 LUMENS	VOLTAGE/ BALLAST 120 VOLT DRIVER 0 TO 10V DIMMING	FIXTURE DESCRIPTION  ONE-PIECE COLD-ROLLED STEEL COATED POLYESTER, PAINTED AFTER FABICATION WITH EMBOSSED FACETS. IMPACT-MODIFIED, SINGLE CLEAR DIFFUSER	MANUFACTURER/ CATALOG SERIES LITHONIA 2VTLED SERIES OR EQUAL	NOT 2
<b>A</b> 1	2x2 VOLUMETRIC TROFFER	RECESSED LAY-IN	3600 LUMENS	120 VOLT DRIVER 0 TO 10V DIMMING	ONE-PIECE COLD-ROLLED STEEL COATED POLYESTER, PAINTED AFTER FABICATION WITH EMBOSSED FACETS. IMPACT-MODIFIED, SINGLE CLEAR DIFFUSER	LITHONIA 2VTLED SERIES OR EQUAL	2
В	2x4 VOLUMETRIC TROFFER	RECESSED LAY-IN	7200 LUMENS	120 VOLT DRIVER 0 TO 10V DIMMING	ONE-PIECE COLD-ROLLED STEEL COATED POLYESTER, PAINTED AFTER FABICATION WITH EMBOSSED FACETS. IMPACT-MODIFIED, SINGLE CLEAR DIFFUSER	LITHONIA 2VTLED SERIES OR EQUAL	2
B1	2x4 VOLUMETRIC TROFFER	RECESSED LAY-IN	7200 LUMENS	120 VOLT DRIVER 0 TO 10V DIMMING	ONE-PIECE COLD-ROLLED STEEL COATED POLYESTER, PAINTED AFTER FABICATION WITH EMBOSSED FACETS. IMPACT-MODIFIED, SINGLE CLEAR DIFFUSER	LITHONIA 2VTLED SERIES OR EQUAL	2
С	6" DOWNLIGHT	RECESSED	LED 1700L	120 VOLT	OPEN CLEAR	GOTHAM LIGHTING EVO SERIES OR EQUAL	2
D	2-0" VANITY	WALL	(2) 14W LINEAR T5	120 VOLT ELECTRONIC/ (1) 2 LAMP BALLAST	ETCHED ACRYLIC DIFFUSER WITH ENGRAVED GEOMETRIC DESIGN, CAST ALUMINUM ENDS	LIGHT CONCEPTS METRO ETCHED DIFFUSER VANITY SERIES OR EQUAL	2
E	EXIT SIGN	UNIVERSAL	LED	120 VOLT	DIE CAST, BRUSHED ALUMINUM FACE, BLACK HOUSING, RED LETTERS, FACES AND ARROWS AS SHOWN ON PLANS.	LITHONIA LE SERIES OR EQUAL	1, 2
F	PATIENT ROOM LED NIGHT LIGHT	RECESSED IN WALL	LED30	120 VOLT	FLAT WHITE, INTEGRATED PHOTO CELL.	HEALTHCARE-LIGHTING (ACUITY) PATHFINDER SERIES OR EQUAL	2
G	6" DOWNLIGHT DIM	RECESSED	LED, 1700L	120 VOLT LUTRON DRIVER	OPEN CLEAR	GOTHAM LIGHTING EVO SERIES OR EQUAL	2
Н	2x4 VOLUMETRIC TROFFER	RECESSED LAY-IN	4800 LUMENS	120 VOLT DRIVER 0 TO 10V DIMMING	ONE-PIECE COLD-ROLLED STEEL COATED POLYESTER, PAINTED AFTER FABICATION WITH EMBOSSED FACETS. IMPACT-MODIFIED, SINGLE CLEAR DIFFUSER	LITHONIA 2VTLED SERIES OR EQUAL	2
H1	2x2 VOLUMETRIC TROFFER	RECESSED LAY-IN	3600 LUMENS	120 VOLT DRIVER 0 TO 10V DIMMING	ONE-PIECE COLD-ROLLED STEEL COATED POLYESTER, PAINTED AFTER FABICATION WITH EMBOSSED FACETS. IMPACT-MODIFIED, SINGLE CLEAR DIFFUSER	LITHONIA 2VTLED SERIES OR EQUAL	2
K	2-0" UNDERCABINET	SURFACE	LED	120VOLT DRIVER	1 3/4" DEPTH, SPECIFICATION GRADE, WHITE PAINTED AFTER FABRICATION SOLID FRONT, 100% ACRYLIC LINEAR PRISMATIC. WITH ROCKER SWITCH	LIGHTOLIER ULED SERIES OR EQUAL	2
L	4'-0" INDUSTRIAL	CHANG HUNG	(2) F028 T8	120 VOLT ELECTRONIC/ (1) 2 LAMP BALLAST	WHITE REFELECTOR	LITHONIA EJS SERIES OR EQUAL	2
AA	EXTERIOR WALL	WALL	LED (1) 21 LED LIGHT/BAR 80CRI	120V	TWO PIECE, DIE CAST ALUMINUM HOUSING AND REMOVABLE HINGED DOOR FRAMETYPE 4 DIST. BRONZE IN COLOR.	COOPER ISW IMPACT ELITE SMALL WEDGE SERIES OR EQUAL	2
otes:	TO PLANS FOR MOUNTING, NUMBER O						

YPE	FIXTURE TYPE	MOUNTING	LAMP TYPE	VOLTAGE/ BALLAST	FIXTURE DESCRIPTION	MANUFACTURER/ CATALOG SERIES FOCAL POINT APOLLO 2 SERIES	NOTI			
A	2x4 INDIRECT FLUORESCENT	RECESSED LAY-IN	(2) F028 T8	120 VOLT ELECTRONIC/ (1) 2 LAMP INSTANT START BALLAST	SEALED OPTICAL COMPARTMENT, ACRYLIC DIFFUSER . BAKED WHITE POST PAINTED ACRYLIC ENAMEL.	OR EQUAL	2			
<b>A1</b>	2x2 INDIRECT FLUORESCENT	RECESSED LAY-IN	(3) F017 T8	120 VOLT ELECTRONIC/ (1) 3 LAMP	SEALED OPTICAL COMPARTMENT, ACRYLIC DIFFUSER . BAKED WHITE POST PAINTED ACRYLIC ENAMEL.	FOCAL POINT APOLLO 2 SERIES OR EQUAL	2			
В	2x4 INDIRECT FLUORESCENT	RECESSED LAY-IN	(3) F085 T8	120 VOLT ELECTRONIC/ (1) 3 LAMP, STEP BALLAST 100% TO 50%	SEALED OPTICAL COMPARTMENT, ACRYLIC DIFFUSER . BAKED WHITE POST PAINTED ACRYLIC ENAMEL.	FOCAL POINT APOLLO 2 SERIES OR EQUAL	2			
B1	2x4 INDIRECT FLUORESCENT	RECESSED LAY-IN	(3) F028 T8	120 VOLT ELECTRONIC/ (1) 3 LAMP LUTRON DIMMING BALLAST	SEALED OPTICAL COMPARTMENT, ACRYLIC DIFFUSER . BAKED WHITE POST PAINTED ACRYLIC ENAMEL.	FOCAL POINT APOLLO 2 SERIES OR EQUAL	2			
С	6" DOWNLIGHT	RECESSED	LED 1700L	120 VOLT	OPEN CLEAR	GOTHAM LIGHTING EVO SERIES OR EQUAL	2			
D	2-0" VANITY	WALL	(2) 14W LINEAR T5	120 VOLT ELECTRONIC/ (1) 2 LAMP BALLAST	ETCHED ACRYLIC DIFFUSER WITH ENGRAVED GEOMETRIC DESIGN, CAST ALUMINUM ENDS	LIGHT CONCEPTS METRO ETCHED DIFFUSER VANITY SERIES OR EQUAL	2			
				BALLAGI		On Laure				
E	EXIT SIGN	SIGN UNIVERSAL LED		120 VOLT	DIE CAST, BRUSHED ALUMINUM FACE, BLACK HOUSING, RED LETTERS, FACES AND ARROWS AS SHOWN ON PLANS.	LITHONIA LE SERIES OR EQUAL	1, 2			
F	PATIENT ROOM LED NIGHT LIGHT	ATIENT ROOM LED NIGHT LIGHT RECESSED IN WALL LED30		120 VOLT	FLAT WHITE, INTEGRATED PHOTO CELL.	HEALTHCARE-LIGHTING (ACUITY) PATHFINDER SERIES OR EQUAL	2			
G	6" DOWNLIGHT DIM	RECESSED	LED, 1700L	120 VOLT LUTRON DRIVER	OPEN CLEAR	GOTHAM LIGHTING EVO SERIES OR EQUAL				
Н	2x4 FLUORESCENT	RECESSED	(2) F028 T8	120 VOLT ELECTRONIC/ (1) 2 LAMP INSTANT START BALLAST	WHITE POWDER PAINTED, #12 PATTERN ACRYLIC, .125 THICK	LITHONIA SP8 SERIES OR EQUAL	2			
H1	2x2 FLUORESCENT	RECESSED	(3) F017 T8	120 VOLT ELECTRONIC/ (1) 3 LAMP INSTANT START BALLAST	WHITE POWDER PAINTED, #12 PATTERN ACRYLIC, .125 THICK	LITHONIA SP8 SERIES OR EQUAL	2			
K	2-0" UNDERCABINET	SURFACE	LED	120 VOLT DRIVER	1 3/4" DEPTH, SPECIFICATION GRADE, WHITE PAINTED AFTER FABRICATION SOLID FRONT, 100% ACRYLIC LINEAR PRISMATIC. WITH ROCKER SWITCH.	LITHONIA ULED SERIES OR EQUAL	2			
L	4'-0" INDUSTRIAL	DUSTRIAL CHANG HUNG (2) F028 T8		120 VOLT ELECTRONIC/ (1) 2 LAMP BALLAST	WHITE REFELECTOR	LITHONIA EJS SERIES OR EQUAL	2			
<b>4A</b>	EXTERIOR WALL	WALL	LED (1) 21 LED LIGHT/BAR 80CRI	120V	TWO PIECE, DIE CAST ALUMINUM HOUSING AND REMOVABLE HINGED DOOR FRAMETYPE 4 DIST. BRONZE IN COLOR.	COOPER ISW IMPACT ELITE SMALL WEDGE SERIES OR EQUAL	2			
es:										

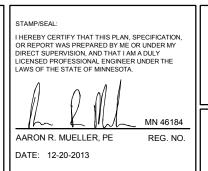
EQUIPMENT			MOTOR DATA							DISCONNECT			TER DATA	FED FROM			
NUMBER	LOCATION	HP	FLA	MCA	MOP	WATTS	AMPS	KVA VOLT/PH	SIZE/POLE	FUSES	LOCATION	SIZE	LOCATION	PANEL	CIRCUIT	FEEDER SIZE	NOTES
CONDENSING U	INITS																
:U-AHU-5	EXTERIOR			129.5	150			208/3	200/3	PER MANUF	AT UNIT	BY MECH	AT UNIT	28-LB-9	18,20,22	1 1/2"C-3#1/0, 1#6 GND	1
:U-AHU-6	EXTERIOR BLD 9 LINK		21.1		35			208/1	200/3	PER MANUF	AT UNIT	BY MECH	AT UNIT	EXISTING SWITCHBOARD 9-MSD		3/4"C-3#10, 1#10 GND.	1,3
XHAUST FANS																	
:F-1	ATTIC	.8						208/3	30/3	PER MANUF	AT UNIT	BY MECH	AT UNIT	28-LB-9	13,15,17	3/4"C-3#10, 1#10 GND.	
:F-2	ATTIC	.44						120/1	30/2	PER MANUF	AT UNIT	BY MECH	AT UNIT	28-LB-9	2	3/4"C-2#10, 1#10 GND.	
F-3	ATTIC	.44						120/1	30/2	PER MANUF	AT UNIT	BY MECH	AT UNIT	28-LB-9	4	3/4°C-2#10, 1#10 GND.	
AIR HANDLING	UNITS																
HU-5 SUPPLY	ATTIC		37.4					208/3	60/3	PER MANUF	AT UNIT	BY MECH	AT UNIT	28-LB-9	1,3,5	1 1/4°C, 3#4, 1#8 GND	1,2
AHU-5 RETURN	ATTIC		14					208/3	30/3	PER MANUF	AT UNIT	BY MECH	AT UNIT	28-LB-9	7,9,11	3/4"C, 3#10, 1#10 GND	1,2
AHU-6	ABOVE CEILING IN BLD 9 LINK	1 1/2						208/3	30/3	PER MANUF	AT UNIT	BY MECH	AT UNIT	EXISTING SWITCHBOARD 9-MSB		3/4"C, 3#12, 1#12 GND	1,2,3
PUMPS									_								_
-7	BASEMENT	15						208/3	100/3	PER MANUF	AT UNIT	BY MECH	AT UNIT	28-LB-9	<del>6</del> ,8,10	1"C-3#6, 1#10 GND	1
-8	BASEMENT	15						208/3	100/3	PER MANUF	AT UNIT	BY MECH	AT UNIT	28-LB-9	12,14,16	1"C-3#6, 1#10 GND	1
<b>-9</b>	BASEMENT IN BUILDING 9	1/6			15			120/1	MRS		AT UNIT	BY MECH	AT UNIT	EXISTING PANELBOARD E9LB2	18	3/4"C, 2#12, 1#12 GND	1,4
<u>lotes</u>																	
	INECT AND MAKE ALL REQUIRED CONNECTION	N FROM DISCON	NECT TO S	TARTER P	ROVIDED	BY MECHAN	ICAL CON	TRACTOR THEN TO MOTO	IR.								



1 2 9

4. PROVIDE A 15A-1P BREAKER IN EXISTING CHALLENGER PMI PANELBOARD SPACE. BREAKER TO MATCH EXISTING AIC RATING.





PROJECT TITLE
RECONFIGURE/EXPAND
BUILDINGS 28 & 9
RESIDENTIAL REHABILITATION
TREATMENT PROGRAM

DATE
12.20.2013

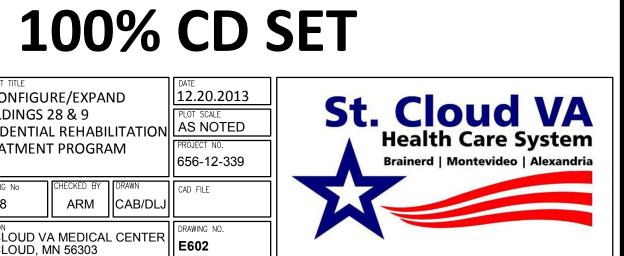
PLOT SCALE
AS NOTED

PROJECT NO.
656-12-339 SCHEDULES CHECKED BY DRAWN

ARM CAB/DLJ ST. CLOUD VA MEDICAL CENTER
T. CLOUD, MN 56303

CRAWING NO.

E602





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120 17th Avenue W.
Alexandria, MN 56308
(320) 762-1290

St. Cloud Office
3339 West St. Germain, Suite 250
St. Cloud, MN 56301
(320) 217-5557

Panelboard Schedule Phase 28-LB-8 Main 200A MCB Bussing 225 AMP ELECTRICAL Wire Voltage Type Load Ckt Bkr Ckt # Ckt # Ckt Bkr Load Type RC 400 20/1 1 2 20/1 400 RC ROOM 78 ROOM 76 
 RC
 400
 20/1
 3
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 RC
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 ROOM 78 ROOM 76 ROOM 78 ROOM 78 ROOM 110 EXTERIOR BY ROOM 78 SPARE ROOMS 76 & 77 SPARE ROOM 78 SPARE ROOM 78 SPARE SPARE SPARE SPARE SPARE 20/1 33 34 20/1 SPARE SPARE 20/1 35 36 20/1 SPARE 20/1 37 38 20/1 SPARE SPARE SPARE 20/1 39 40 20/1 SPARE 
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 SPARE 1. CIRCUITS DELETED UNDER ALTERNATE SHALL BECOME SPARES 20A/1P BREAKERS

Name	28-LB-9		Phase	3		Main	500A MCB		
Location	ELECTRI	CAL	Wire	4		Bussing	600 AMP		
Mounting	SURFACI	3	Voltage	120/208					
Description	Туре	Load	Ckt Bkr	Ckt#	Ckt#	Ckt Bkr	Load	Туре	Description
AHU-5 SUPPLY	MT	4488	50/3	1	2	15/1	1176	MT	EF-2
-	MT	4488	_	3	4	15/1	1176	MT	EF-3
-	MT	4488	-	5	6	90/3	5544	MT	P-1
AHU-5 RETURN	MT	1680	20/3	7	8	-	5544	MT	-
-	MT	1680	-	9	10	-	5544	MT	-
-	MT	1680	-	11	12	90/3	5544	MT	P-2
EF-1	MT	480	15/3	13	14	-	5544	MT	-
-	MT	480	-	15	16	-	5544	MT	-
<del>-</del>	MT	480	-	17	18	150/3	15540	MT	CU-AHU-5
			20/1	19	20	-	15540	MT	-
			20/1	21	22	-	15540	MT	=
			20/1	23	24	20/1			
			20/1	25	26	20/1			
			20/1	27	28	20/1			
			20/1	29	30	20/1			
			20/1	31	32	20/1			
			20/1	33	34	20/1			
			20/1	35	36	20/1			
			20/1	37	38	20/1			
			20/1	39	40	20/1			
			20/1	41	42	20/1			

Name Location Mounting	<b>28-L2-1</b> Electri Surfaci		Phase Wire Voltage	3 4 120/208		Main Bussing	200A MCB 225 AMP		
Description	Туре	Load	Ckt Bkr	Ckt#	Ckt#	Ckt Bkr	Load	Type	Description
SPARE			20/1	1	2	20/1	1595	LT	ROOMS 237, 238, 239, 240,, 241
SPARE			20/1	3	4	20/1	1505	LT	ROOMS 242, 244, 245, 247, 249, 251
SPARE			20/1	5	6	20/1	1750	LT	ROOMS 259, 260, 252, 253, 254, 255, 256, 258
SPARE			20/1	7	8	20/1	1750	LT	ROOMS 261, 262, 263, 201, 202, 203
SPARE			20/1	9	10	20/1	1750	LT	ROOMS 213, 212, 211, 210, 209, 207, 206, 205, 204
SPARE			20/1	11	12	20/1	1450	LT	ROOMS 220, 219, 218, 216, 215, 214,221
SPARE			20/1	13	14	20/1	1450	LT	ROOMS 232, 226, 225, 224, 223, 222
SPARE			20/1	15	16	20/1	1000	LT	ROOMS 227, 228, 234, 235, 237, 236, 233
SPARE			20/1	17	18	20/1	1000	LT	ROOMS CORRIDOR, 234
SPARE			20/1	19	20	20/1	1550	LT	ROOMS 266, 248
SPARE			20/1	21	22	20/1	1275	LT	ROOMS CORRIDOR, 229, 267
SPARE			20/1	23	24	20/1	1550	LT	ROOMS 217, 231
SPACE				25	26				SPACE
SPACE				27	28				SPACE
SPACE				29	30				SPACE
SPACE				31	32				SPACE
SPACE				33	34				SPACE
SPACE				35	36				SPACE
SPACE				37	38				SPACE
SPACE				39	40				SPACE
SPACE				41	42				SPACE

Jame ocation	<b>28-L2-2</b> ELECTRI	ICAI	Phase Wire	3 4		Main Bussing	200A MCB 225 AMP		
ocation Mounting	SURFAC		Wire Voltage	120/208		Dussing	225 AMP		
Description	Type	Load	Ckt Bkr	Ckt #	Ckt#	Ckt Bkr	Load	Туре	Description
ROOMS 238, 239	RC	1600	20/1	1	2	20/1	800	RC	ROOM 260
ROOMS 238 RESTROOM	RC	200	20/1	3	4	20/1	200	RC	ROOM 260 RESTROOM
ROOMS 239 RESTROOM	RC	200	20/1	5	6	20/1	1400	RC	ROOM 261
ROOMS 240, 241	RC	1600	20/1	7	8	20/1	200	RC	ROOM 261 RESTROOM
ROOM 240 RESTROOM	RC	200	20/1	9	10	20/1	1400	RC	ROOM 262
ROOM 241 RESTROOM	RC	200	20/1	11	12	20/1	200	RC	ROOM 262 RESTROOM
ROOM 244	RC	1200	20/1	13	14	20/1	1800	RC	ROOM 263
ROOM 244 RESTROOM	RC	200	20/1	15	16	20/1	200	RC	ROOM 263 RESTROOM
ROOM 245	RC	1400	20/1	17	18	20/1	1600	RC	ROOM 237
ROOM 245 RESTROOM	RC	200	20/1	19	20	20/1	200	RC	ROOM 237 RESTROOM
ROOM 247	RC	1400	20/1	21	22	20/1	200	RC	ROOM 233
ROOM 247 RESTROOM	RC	200	20/1	23	24	20/1	200	RC	ROOM 233
ROOM 249	RC	1200	20/1	25	26	20/1	200	RC	ROOM 233
ROOM 251	RC	1400	20/1	27	28	20/1	200	RC	ROOM 233
ROOM 251 RESTROOM	RC	200	20/1	29	30	20/1	400	RC	ROOM 233 TV'S
ROOM 256	RC	1400	20/1	31	32	20/1	600	RC	ROOM 233
256 RESTROOM	RC	200	20/1	33	34	20/1	800	RC	ROOM 242, CORRIDOR
ROOM 258	RC	1400	20/1	35	36	20/1	400	RC	ROOM 248
ROOM 258 RESTROOM	RC	200	20/1	37	38	20/1	400	RC	ROOM 248
ROOM 259	RC	1200	20/1	39	40	20/1	400	RC	ROOM 248
ROOM 259 RESTROOM	RC	200	20/1	41	42	20/1	400	RC	ROOM 248
ROOM CORRIDOR, 252, 253	RC	1000	20/1	43	44	20/1	200	RC	ROOM 250
ROOM 254, 255	RC	400	20/1	45	46	20/1	200	RC	ROOM 250
ROOM 253 WASHER	MI	1200	20/1	47	48	20/1	200	RC	ROOM 250
ROOM 253 DRYER	MI	1500	30/2	49	50	20/1	800	RC	ROOM 201
-	MI	1500	-	51	52	20/1	800	RC	ROOM 201
ROOM 234	RC	200	20/1	53	54	20/1	400	RC	SPARE
ROOMS 235, 232, CORRIDOR	RC	800	20/1	55	56	20/1	400	RC	SPARE
DATA ROOM	RC	400	20/1	57	58	20/1	400	RC	SPARE
SPARE	SP		20/1	59	60	20/1	400	RC	SPARE

Name Location	<b>28-ECB</b> -1 Electri		Phase Wire	3 4		Main Bussing	100A MCB 125 AMP		
Mounting	SURFAC		Voltage	120/208		Dussing	123 AMP		
Description	Type	Load	Ckt Bkr	Ckt #	Ckt#	Ckt Bkr	Load	Туре	Description
ROOM 010	RC	400	20/1	1 1	2	20/1	800	RC	ROOM 76
ROOM 77	LT	1200	20/1	3	4	20/1	800	RC	ROOM 78
SPARE	LI	1200	20/1	5	6	20/1	1200	MT	DOMESTIC GEN
SPARE			20/1	7	8	20/1	1200	MT	DOMESTIC GEN
SPARE			20/1	9	10	20/1	1200	1911	SPARE
SPARE			20/1	11	12	20/1			SPARE
SPARE			20/1	13	14	20/1			SPARE
SPARE			20/1	15	16	20/1			SPARE
SPARE			20/1	17	18	20/1			SPARE
SPARE			20/1	19	20	20/1			SPARE
SPARE			20/1	21	22	20/1			SPARE
SPACE				23	24	20/1			SPARE
SPACE				25	26				SPACE
SPACE				27	28				SPACE
SPACE				29	30				SPACE
SPACE				31	32				SPACE
SPACE				33	34				SPACE
SPACE				35	36				SPACE
SPACE				37	38				SPACE
SPACE				39	40				SPACE
SPACE				41	42				SPACE
Notes									

Vame	28-EC2-1		Phase	3		Main	100A MCB		
Location	ELECTR:	ICAL	Wire	4		Bussing	125 AMP		
Mounting	SURFAC	Е	Voltage	120/208					
Description	Туре	Load	Ckt Bkr	Ckt#	Ckt#	Ckt Bkr	Load	Туре	Description
ROOM 248	RC	400	20/1	1	2	20/1	1000	MI	ROOM 242 REFRIGERATOR
ROOM 248	RC	400	20/1	3	4	20/1	1000	MI	ROOM 233 REFRIGERATOR
ROOM 248	RC	400	20/1	5	6	20/1	400	RC	ROOM 264
ROOM 248	RC	400	20/1	7	8	20/1	1000	MI	KITCHEN REFRIGERATOR 266
ROOM 250	RC	200	20/1	9	10	20/1	1000	MI	KITCHEN REFRIGERATOR 266
ROOM 250	RC	200	20/1	11	12	20/1	400	RC	ROOM 229
ROOM 250	RC	200	20/1	13	14	20/1	1200	MI	ROOM 230 REFRIGERATOR
ROOM 250	RC	200	20/1	15	16	20/1	1200	MI	ROOM 230 REFRIGERATOR
ROOM 236	RC	400	20/1	17	18	20/1	200	RC	ROOM 215
ROOM 236	RC	400	20/1	19	20	20/1	200	RC	ROOM 215
ROOM 233	RC	400	20/1	21	22	20/1	200	RC	ROOM 215
ROOM 238	RC	400	20/1	23	24	20/1	1200	RC	ROOM 215
ROOM 234	RC	200	20/1	25	26	20/1	400	RC	ROOM 217
ROOMS 215, 217, 234, 248, 250, 236, 237	LT		20/1	27	28	20/1	400	RC	ROOM 217
ROOM 236 DATA ROOM	RC	400	20/1	29	30	20/1	400	RC	ROOM 217
ROOM 236 OWNER PROVIDED UPS	RC	1000	30/2	31	32	20/1	400	RC	ROOM 217
-	RC	1000	-	33	34	20/1	1200	RC	ROOM 221 REFRIGERATOR
ROOM 216	RC	400	20/1	35	36	20/1			SPARE
ROOM 249	RC	400	20/1	37	38	20/1			SPARE
SPARE			20/1	39	40	20/1			SPARE
SPARE			20/1	41	42	20/1			SPARE

Name	28-L2-4		Phase	3		Main	200A MCB		
Location	ELECTRI	CAL	Wire	4		Bussing	225 AMP		
Mounting	SURFAC	Е	Voltage	120/208					
Description	Туре	Load	Ckt Bkr	Ckt #	Ckt#	Ckt Bkr	Load	Туре	Description
ROOM 202	RC	1400	20/1	1	2	20/1	1400	RC	ROOM 219
ROOM 202 RESTROOM	RC	1200	20/1	3	4	20/1	1200	RC	ROOM 219 RESTROOM
ROOM 203	RC	1400	20/1	5	6	20/1	1400	RC	ROOM 220
ROOM 203 RESTROOM	RC	1200	20/1	7	8	20/1	1200	RC	ROOM 220 RESTROOM
ROOM 204	RC	1400	20/1	9	10	20/1	1800	RC	ROOMS 222, 223
ROOM 204 RESTROOM	RC	1200	20/1	11	12	20/1	1200	RC	ROOM 222 RESTROOM
ROOM 205	RC	800	20/1	13	14	20/1	1200	RC	ROOM 223 RESTROOM
ROOM 205 RESTROOM	RC	1200	20/1	15	16	20/1	1800	RC	ROOMS 224, 225
ROOM 206	RC	1200	20/1	17	18	20/1	1200	RC	ROOM 224 RESTROOM
ROOM 206 RESTROOM	RC	1200	20/1	19	20	20/1	1200	RC	ROOM 225 RESTROOM
ROOM 207	RC	1400	20/1	21	22	20/1	1600	RC	ROOM 226
ROOM 207 RESTROOM	RC	1200	20/1	23	24	20/1	1200	RC	ROOM 226 RESTROOM
ROOM 209	RC	1600	20/1	25	26	20/1	800	RC	ROOMS CORRIDOR, 228
ROOM 209 RESTROOM	RC	1200	20/1	27	28	20/1	1200	RC	ROOMS CORRIDOR, 210
ROOM 214	RC	1000	20/1	29	30	20/1	200	RC	ROOM 211
ROOM 214 RESTROOM	RC	1200	20/1	31	32	20/1	400	RC	ROOMS 212, 213
ROOM 216	RC	800	20/1	33	34	20/1	1000	MI	ROOM 212 WASHER
ROOM 216	RC	800	20/1	35	36	30/2	1500	MI	ROOM 212 DRYER
ROOM 218	RC	1200	20/1	37	38	-	1500	MI	<del>-</del>
ROOM 218 RESTROOM	RC	1200	20/1	39	40	20/1	1000	RC	CORRIDOR
ROOM 215	RC	200	20/1	41	42	20/1	400	RC	ROOM 221
ROOM 215	RC	200	20/1	43	44	20/1	400	RC	ROOM 229 TV'S AND ROOM 231 TV
ROOM 215	RC	200	20/1	45	46	20/1	1200	RC	ROOM 230 ABOVE COUNTER
ROOM 215	RC	200	20/1	47	48	20/1	1200	RC	ROOM 230 ABOVE COUNTER
ROOM 217	RC	400	20/1	49	50	20/1	1200	RC	ROOM 230 ICE MACHINE
ROOM 217	RC	400	20/1	51	52	20/1	1200	RC	ROOM 230 MICROWAVE
ROOM 217	RC	400	20/1	53	54	20/1	360	RC	ROOM 236
ROOM 217	RC	400	20/1	55	56	20/1	360	RC	ROOM 236
ROOM 236	RC	360	20/1	57	58	20/1	360	RC	ROOM 238
RM 229	RC	900	20/1	59	60	20/1	360	RC	ROOM 238

Name	28-L2-3		Phase	3		Main	200A MCB		
Location	ELECTR	ICAL	Wire	4		Bussing	225 AMP		
Mounting	SURFAC	E	Voltage	120/208					
Description	Туре	Load	Ckt Bkr	Ckt#	Ckt#	Ckt Bkr	Load	Туре	Description
ROOM 264	RC	900	20/1	1	2	30/2	1500	RC	UPS IN DATA ROOM
ROOM 264 TV'S	RC	540	20/1	3	4		1500	RC	
ROOM 266 COUNTER	RC	180	20/1	5	6	30/2	1500	RC	UPS IN DATA ROOM
ROOM 266 COUNTER	RC	180	20/1	7	8		1500	RC	
ROOM 266 ICE MACHINE	RC	1200	20/1	9	10	20/1			SPARE
ROOM 266 MICROWAVE	RC	1500	20/1	11	12	20/1			SPARE
ROOM 266 TV	RC	180	20/1	13	14	20/1			SPARE
ATTIC	RC	180	20/1	15	16	20/1			SPARE
ATTIC	RC	180	20/1	17	18	20/1			SPARE
SPARE			20/1	19	20	20/1			SPARE
SPARE			20/1	21	22	20/1			SPARE
SPARE			20/1	23	24	20/1			SPARE
SPARE			20/1	25	26	20/1			SPARE
SPARE			20/1	27	28	20/1			SPARE
SPARE			20/1	29	30	20/1			SPARE
SPARE			20/1	31	32	20/1			SPARE
SPARE			20/1	33	34	20/1			SPARE
SPARE			20/1	35	36	20/1			SPARE
SPARE			20/1	37	38	20/1			SPARE
SPARE			20/1	39	40	20/1			SPARE
SPARE			20/1	41	42	20/1			SPARE

Load Schedule: M	ain Switchboard	28-MSB-1		
O.C. Device Type:	2000A BREAKER	Mounting: FREE STANDING	Voltage LL	208
Device Family:	BREAKER	Enclosure: NEMA 1	Voltage LG	120
Bus Amps:	200	0	AIC Rating:	65K
1		O.C. DEVICE		
CKT NO.	LOAD	CIRCUIT BREAKER	POLES	NOTES
1	28-MSD	1600	3	NOTES
2	28-LB-8	200	3	
3	28-LB-9	500	3	
4	28-L2-1	200	3	
5	28-L2-2	200	3	
6	28-L2-3	200	3	
7	28-L2-4	200	3	
8	SMOKE BUILDING	100	3	
9	SPARE	200	3	
10	SPARE	200	3	
12	SPARE	100	3	
13	SPARE	100	3	
14	SPACE			2
15	SPACE			1
16	SPACE			1
SWITCHBOARD SC	HEDULE GENERAL NOTES			
A. PROVIDE TVSS				
B. FULLY RATED				
C PROVIDE SWITC	THROARD IDENTIFICATION LA	ABEL INCLUDING PANEL NAME, V	OLTAGE FEEDER	
SIZE. FOR EXAM	MPLE: LP-1-1,208/120V,3PH,4W	(,(2)3"C,4#350&1#1GND. FOR EACH	SWITCH	

**100% CD SET** 



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STAMP/SEAL: I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
MN 46184
AARON R. MUELLER, PE REG. NO. DATE: 12-20-2013

2. PROVIDE SPACE FOR A FUTURE 200A/3P BREAKER

	DRAWING TITLE SCHEDULES		PROJECT TITLE RECONFIGU	ND	DATE 12.20.2013	
N,	SCHEDULES		BUILDINGS : RESIDENTIA TREATMEN	PLOT SCALE AS NOTED PROJECT NO. 656-12-339		
4_ O.	APPROVED: PROJECT DIRECTOR	DATE:	BUILDING No 28	CHECKED BY  ARM	DRAWN CAB/DLJ	CAD FILE
			ST. CLOUD, N		L CENTER	DRAWING NO.

